San Diego Unified Port District
P.O. Box 120488
San Diego, California 92112-0488

NOTICE OF PREPARATION
of a
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT TITLE: **BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT AND PORT MASTER PLAN AMENDMENT (UPD #EIR-2016-176)**

APPLICANT: San Diego Symphony Orchestra Association

LOCATION: Embarcadero Marina Park South, San Diego, in San Diego County, California

REFERENCE: California Code of Regulations, Title 14, Sections 15082(a), 15103, 15375.

The San Diego Unified Port District (District) will be the Lead Agency in preparing an Environmental Impact Report (EIR) for the project identified above. The District is soliciting input and feedback from various agencies, stakeholders, and the public pertaining to the scope and content of the environmental information that will be included in the EIR. For certain agencies, this may be germane to statutory responsibilities in connection with the project. An agency may need to use the project's EIR when considering its permit or other approval for the project. The project description, location, and possible environmental effects of the project are contained in the attached materials.

Due to the time limits mandated by state law, your comments must be sent at the earliest possible date but no later than 30 days after receiving this notice. **Comments regarding environmental concerns will be accepted until 4:30 p.m. on Friday, January 6, 2017** and should be mailed to: Joseph Smith, San Diego Unified Port District, Real Estate Development-Development Services, 3165 Pacific Highway, San Diego, CA 92101 or emailed to: jdsmith@portofsandiego.org.

A public scoping meeting regarding the proposed EIR will be held on Monday, December 19, 2016 at 5:00 p.m. at the San Diego Unified Port District Administration Building, Training Room, 3165 Pacific Highway, San Diego, CA 92101.

For questions on this Notice of Preparation, please contact Joseph Smith, AICP, Senior Planner, in Real Estate Development-Development Services, at 619-686-6597.

Signature: _____ Date: 11/30/16

Wileen C. Manaois
Principal, Development Services
Real Estate Development

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The Bayside Performance Park Enhancement Project and Port Master Plan Amendment (project) would construct a bayside performance park and public park enhancements at Embarcadero Marina Park South (EMPS) and would require associated discretionary actions, including, without limitation, a Port Master Plan Amendment (PMPA) and a Coastal Development Permit (CDP).

Publication of this Notice of Preparation (NOP) initiates the San Diego Unified Port District's (District) environmental review and analysis of the project pursuant to the California Environmental Quality Act (CEQA). The NOP is the first step in the CEQA process. It describes the project and is distributed to responsible agencies, trustee agencies, involved federal agencies, and the general public. As stated in CEQA Guidelines Section 15375, the purpose of the NOP is "to solicit guidance from those agencies as to the scope and content of the environmental information to be included" in the Environmental Impact Report (EIR). The NOP provides an opportunity for agencies and the general public to comment on the scope and content of the environmental review of a project.

PROJECT PROPONENT/APPLICANT

San Diego Symphony Orchestra Association (Symphony)

PROJECT LOCATION

The project site lies within the City of San Diego, California, adjacent to the San Diego Bay (Figure 1) in the District's jurisdiction. Specifically, the project site is located in EMPS, which is a T-shaped park that is almost completely surrounded by San Diego Bay and connected to the inland area by a thin strip of land (Figure 2). The land inland of the project site to the northeast/east and beyond is largely urbanized and developed. The surrounding land uses include Embarcadero Marina Park North (EMPN) to the northwest (across the marina inlet); Marriott Marina to the north; and Joe's Crab Shack and the Fifth Avenue Landing Water Transit Center and Marina to the east. The San Diego Convention Center and Hilton Hotel are located further northeast and southeast of the project, respectively. The area is further surrounded by the City of San Diego's Marina and Gaslamp neighborhoods on the mainland and by Coronado Island across the bay (approximately 0.38 mile west of the project site).

The project site is within Planning District 3 – Centre City Embarcadero of the District's certified Port Master Plan (PMP) and, therefore, subject to the Centre City Embarcadero Precise Plan. Planning District 3 encompasses the downtown waterfront area and includes an urban region of over 2.7 million people. Land and water uses of Planning District 3 include commercial, industrial, public recreation, and public facilities. The current PMP's Precise Plan for District 3 aims to create a unified waterfront, both visually and physically, with an overall sense of place and emphasis on the pedestrian-oriented waterfront experience The Embarcadero Promenade serves as a pedestrian spine through the Centre City Embarcadero where commercial and recreational activities are located, and links EMPS and EMPN. EMPS falls within the Marina Zone subarea of Planning District 3, which is planned to be intensively developed as a major public and commercial complex. The Marina Zone includes commercial areas such as Central Embarcadero (also known as Seaport Village), the Convention Center, and several hotels. EMPS is designated as Park/Plaza in the PMP. EMPS is entirely developed and includes park uses, a parking lot, fishing pier, bait shop and cafe, four basketball courts (two full-size courts divided into four half-courts), gazebo, fitness course, public men's and women's restrooms, picnic areas, lawn area, and public open space including an 8-foot-wide meandering bayside promenade.

EMPS is currently used for many public and private events that are subject to the District's Special Event Procedures and Guidelines. The larger events include use of the park by public, private, corporate, and non-profit entities for special engagements, including a seasonal performance and event venue for the San Diego Symphony Orchestra Association's Bayside Summer Nights performances. Since 2004, the Bayside Summer Nights performances (formerly known as the Summer Pops) have been held from June through Labor Day each year. The performances are held in EMPS using a seasonal temporary performance and event venue. Each year, the Symphony performs up to 37 concerts at the temporary venue installation located on the northwestern portion of EMPS. The venue includes use of a temporary stage and acoustic shell, kiosks and trailers, tables and chairs, bleacher seating, fencing, portable restrooms, food service, lighting and other temporary facilities.

PROJECT DESCRIPTION

The project consists of the replacement and enhancement of structures in EMPS, as well as new ancillary facilities. Some existing improvements on the project site would be demolished to accommodate the construction of the project. Construction of the project is anticipated to occur over an approximately 10-month timeframe. Figure 3 depicts the proposed site plan for the project and each component of the project is described in detail in the following subsections.

Park Enhancements

Park enhancements include redevelopment of 10.8-acre EMPS to accommodate the installation of two components: (a) "Bayside Performance Park," referring to the 3.47-acre performance and event venue and public park enhancements located within the northwestern portion of EMPS; and (b) "EMPS Enhancements," referring to the proposed public park enhancements located outside of the Bayside Performance Park and within the central and southeastern portions of EMPS. The Bayside Performance Park would utilize approximately one-third of EMPS area. The limits of the performance park area are depicted in Figure 4.

Bayside Performance Park Component

The Symphony's seasonal use of a temporary performance stage and other temporary amenities on the northwestern side of EMPS would be replaced by the Bayside Performance Park that would include a state-of-the-art permanent outdoor performance stage and ancillary facilities for use by the Symphony and other artists and public/private events. Once complete, the performance and event venue would have the flexibility to accommodate a maximum capacity of 10,000 seats, though the majority of events would have a maximum attendance of 5,000 or fewer. The projected programming initially includes an estimated average attendance of 3,131 per event. In all, the following amenities would be constructed within a 3.47-acre Bayside Performance Park area that encompasses the northwestern portion of EMPS:

- Construction of a permanent performance stage and acoustic shell (maximum height of 57 feet) and performance back-of-house facilities (i.e., storage, dressing rooms, waiting room, and restrooms); two 9-foot-by-14-foot video screens located in the vicinity of the stage structure; seven sound and light supports co-located with ancillary video screens; and a sound control booth;

- Synthetic turf (sand-based) lawn to be used in the main seating area and pre-event spaces; during event hours, seating would be temporary and no permanent seating would be installed; all lawns would be open to the public during non-event hours;

- Concrete steps and a deck at the back of the performance stage (facing northwest); the steps and deck would be open to the public as a bay viewing deck during non-event hours; the space could be used for public/private event rentals;

- Box office;

- Two pavilions for food and/or other event services;

- 42-inch-tall perimeter fencing between the Bayside Performance Park and public promenade, with a one-foot-wide planter area on either side and large removable portions to provide public access throughout the Bayside Performance Park during non-event hours;

- Sections of 8-foot-tall permanent and removable metal fencing at the northwestern back-of-stage areas;

- Subgrade restroom facility with a total of 68 stalls (64 men's and women's stalls and 2 gender-neutral restrooms at each end of the facility, totaling 4 public gender-neutral restrooms that would be open to the public during non-event hours with the remaining to be used only during event hours); and

- Visual public art element illuminated on the exterior acoustic shell.

Figure 4 depicts the locations of amenities proposed within the Bayside Performance Park. In total, the Bayside Performance Park would be comprised of approximately 102,699 square feet (2.36 acres) of synthetic turf (sand based) to be utilized for event seating and public open space; 10,325 square feet (0.23 acre) of open lawn area; 15,242 square feet (0.35 acre) of permeable pavers in the pavilion area; and 19,302 (0.44 acre) of concrete pavers for the back-of-stage deck and venue pathways. The performance stage and ancillary structures would have

a footprint of 13,015 square feet (0.29 acre). The performance stage includes an acoustically engineered acoustic shell wrapped in an architectural fabric shell that would serve both acoustic purposes and complement the design of the nearby Convention Center and surrounding development. The project includes a visual public art element that may consist of a light-emitting diode (LED) light art installation on the exterior of the shell. The lighting would be used to illuminate the exterior acoustic shell at night with various colors and artistic effects.

The construction of the permanent stage and ancillary facilities would eliminate the need to assemble and dismantle the temporary stage and facilities for the Bayside Summer Nights performances and potentially other special events. Further, the temporary stage configuration used for the seasonal venue is limited in its ability to control sound and visual resources. The performance stage would incorporate engineered acoustics that would be able to project sound toward the audience and would result in less sound bleed into the surrounding areas and across the bay. The project's stage and acoustic shell would contribute to the existing San Diego skyline and its architectural design would be in context to surrounding development.

Programming in the Bayside Performance Park

The Symphony has proposed an expansion of its outdoor programming, currently held June through September, to include year-round events that would include paid admission and rental events as well as free community events. Symphony paid admission and rental events would be limited to 15 percent of the year (equivalent to 55 full-day or 110 half-day events) in order to maintain public access and recreation within the Bayside Performance Park for 85 percent of the year. Public access and recreation would remain the primary use of EMPS including the Bayside Performance Park, with the majority of the park open 100 percent of the time. While the majority of the programming would continue to occur during the summer months, events would be held outside of the summer season as well. Most Symphony events are considered half-day events and do not require full-day access restrictions as they typically occur in late afternoon and evening hours. Performances within the Bayside Performance Park could be held any day throughout the week and performance dates and times would vary depending on the program.

The Symphony has a long-standing commitment to education and community engagement and would continue to offer free and discounted cultural and educational events to the general public. The Symphony regularly offers over a dozen distinct educational and community-based initiatives, including young persons' concerts, high school band festivals, and music lectures at senior centers. As part of the project, the Symphony would expand on its current community engagement activities by offering activities and events at the Bayside Performance Park such as:

- Free community concerts and performances;
- San Diego Unified School District and National City School District student workshops;
- Science, Technology, Engineering, Art and Mathematics (STEAM) Education Workshops;
- Community music lessons;
- Community movies in the park;
- Lunchtime enrichment lectures;

- Symphony rehearsals open to the public;

- City-wide celebrations, such as Dia de los Muertos, Veterans and Memorial Day celebrations, and diverse cultural festivals; and

- Discounted ticket program for admission-based events

EMPS Enhancements

EMPS enhancements would reconfigure and enhance the areas of EMPS that are outside the Bayside Performance Park to create more usable park area and improve the existing public access on the site. EMPS enhancements include the following park enhancements throughout the southeastern and central portions of EMPS that fall outside the Bayside Performance Park boundaries:

- Reconfiguration of the parking lot to add four parking spaces and landscaped medians (for a total of 132 spaces);

- Replacement of the four existing basketball courts (two full-sized courts that are divided into four half-sized courts) with new basketball court materials and equipment (e.g., court surface, hoops);

- Relocation of the existing exercise stations to the southeaster portion of the EMPS, near the gazebo and basketball courts, and replacement, as necessary, with new equipment;

- Refurbishment of the existing public outdoor gazebo with similar materials as existing; and

- Refurbishment of the existing public restrooms with new facilities (number of stalls would be maintained).

The redeveloped basketball court and gazebo area would cover approximately 29,778 square feet (0.68 acre). The area outside of the Bayside Performance Park boundaries would include approximately 96,954 square feet (2.23 acres) of natural, open lawn space. The reconfigured parking lot would cover approximately 78,316 square feet (1.80 acres).

Programming in EMPS

EMPS as a whole, which includes the proposed Bayside Performance Park, is open to the general public daily from 6:00 a.m. to 10:30 p.m., and would continue to be used for temporary public, private, and civic events similar to what occurs today. These events must obtain a special event permit from the District subject to the District's Special Event Procedures and Guidelines. Examples of these events include weddings, photo shoots, picnics, fun runs and walks, corporate events, and other types of temporary events. Generally, the number of annual events held at EMPS increases by approximately 10 percent each year. In 2016, from June to December, 56 permitted events were held at EMPS. During operation of the project, events held at EMPS would be similar to the types of temporary events currently occurring. Similar to existing conditions, the number of annual events would continue to increase by approximately 10 percent annually, with the exception that the number of annual events would increase by approximately 20 percent in each of the initial two years of operation (2019 and 2020) due to the proposed public improvements.

The project also includes enhancements to public access, project sustainability features, and park infrastructure as described in the following subsections.

Public Access

Recognizing the importance of EMPS as a public park and part of the pedestrian-oriented waterfront experience in this portion of South Embarcadero (Centre City Embarcadero), the project would maintain public accessibility within the Bayside Performance Park area (with the exception of the stage structure) during non-event hours. Symphony paid admission and rental events would be limited to 15 percent of the year (approximately 110 half-day events) in order to maintain public access and recreation within the Bayside Performance Park for 85 percent of the year. Figure 5 specifies which areas of EMPS are proposed to remain open to the public at all times and which areas would be available to the public 85 percent of the year. The following public access enhancements are proposed:

- Widening and replacement of the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park area (on the northwestern area of EMPS) with a 12-foot-wide promenade. The promenade would remain open to the public during all event and non-event hours;

- Installation of public access wayfinding signage and educational signage throughout EMPS;

- Installation of LED lighting to illuminate portions of the promenade and main access points to aid in nighttime wayfinding and create a safe nighttime environment; and

- Installation of public benches within the Bayside Performance Park.

With the project, the EMPS would include a total of approximately 65,673 square feet (1.50 acres) of public promenade. An aerial overview image of the EMPS with the Bayside Performance Park is provided in Figure 6.

Sustainability Features

The project has incorporated sustainable methods and materials into its design and includes the following sustainability features:

- Modular wetland/storm water treatment and drainage system throughout the entire EMPS (described in more detail below);

- 90 rows (360 panels) of photovoltaic panels to be installed over the two parking medians by year 2030;

- Lawn areas composed of commercial-grade sand-based synthetic turf to reduce water consumption and maintenance requirements;

- Ornamental landscaping with a majority of “very low” water use plant species and some “low” or “moderate” water use species as well as installation of 55 trees of various species;

- Energy-efficient LED lighting that is directed such that light does not bleed into surrounding and light pollution is minimized;

- Sensor, low-flow water use fixtures consistent with the District's standards;

- Passive cooling techniques to control the building and performance stage shell temperatures and minimize energy consumption, which is done by utilizing natural ventilation and wind patterns through the structures, strategically placing shading, and use of dual glazing, green roofing, light colors, and reflective coatings;

- Use of sustainable interior and exterior building materials that count toward Leadership in Energy & Environmental Design (LEED) credits; and

- One electric vehicle charging station that services two "park visitor only" parking stalls located on the eastern portion of the parking lot.

Based on a preliminary assessment, the existing sewer pump station for the site is adequate to serve the project without requiring any upgrades. However, the EIR will provide further analysis to confirm this preliminary conclusion. The site is already equipped with water and electricity service; dedicated water and electricity service and associated meters would be provided on-site by the utilities. Because there is no existing gas service on-site, the associated infrastructure would be installed and new gas service would be supplied to the project site.

A modular wetland/storm water treatment and drainage system would be constructed during site development. Surface drainage at the site generally flows radially from the center of the gently sloped lawn area toward the north and south low points and is conveyed to the bay through curb inlets. The project includes grading and redistribution of the native fill to create an elevated lawn (over the sub-grade restrooms) at the western portion of the site. Storm water from this area would flow to vegetated strips located along the edge of the promenade, where water would be treated by a biofilter at the north edge or otherwise by media filters prior to entering the storm water conveyance system. Storm water from the center parking lot area would flow towards vegetated swales (bioswales) and storm water from the access road would be conveyed to two modular wetland systems to treat pollutants prior to entering the conveyance system. The southeastern portion of the site has two distinct drainage management areas, from which runoff would flow towards a bioswale for treatment prior to entering the storm water conveyance system. Storm water from the southernmost drainage management area would flow toward two area drains in the parking lot for treatment via the media filter inserts or a biofilter located at the southern edge. All storm water would ultimately drain to the bay, as occurs at the existing site. The existing drainage system is not fitted with backflow devices at the outfalls; therefore, the project would include the construction of backflow devices to prevent flooding of the site during high tide. No work within the water or the water embankment would be required.

Off-Site Enhancements

In addition to the enhancements at EMPS, the project includes a monetary contribution to the District for a future off-site public improvement.

PMPA

The current PMP designation for the site is Park/Plaza, which encourages the development and accommodation of public access to and along the interface zone of land and water. Uses

frequently associated with Park/Plaza include cultural uses and other park-activating uses that are ancillary to the public uses. The Park/Plaza designation of the site is located in the Marina Zone Subarea of the Centre City Embarcadero Precise Plan, Planning District 3. As described in the Precise Plan, the Marina Zone is planned to be "intensively developed as a major public and commercial recreational complex." The Plan describes the 22-acre Embarcadero Marina Park as contributing to the transformation of the waterfront area into an "attractive commercial and recreational resource." The Plan further describes this waterfront area as a "lively activity center for residents and visitors alike." The current PMP discusses the EMPS to be open to general public use at all times, with an allowance for temporary special event use of the park consistent with District Special Event Procedures and Guidelines.

A PMPA is proposed and shall describe the following components:

- Describe the prior use of a portion of the park as a temporary performance venue for admission-based performances and rentals in the Marina Zone Subarea;

- Describe the parameters for use of the Bayside Performance Park for admission-based events and rentals; and

- Correct a reference to EMPS in the Convention Way Basin subarea (relocate to the Marina Zone subarea).

The proposed PMPA is project-specific and would not address other projects or land uses within PMP Precise Plan Planning District 3.

ENVIRONMENTAL CONSIDERATIONS

Probable Environmental Effects to be Addressed in the EIR

Based on an initial review of the project, the EIR would address the probable project-related and cumulative environmental effects associated with the implementation of the project for the following resource areas.

- Aesthetics and Visual Resources
- Air Quality and Health Risk
- Geologic Hazards and Soils
- Greenhouse Gas Emissions and Climate Change
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Public Services
- Recreation
- Transportation/Circulation/Parking
- Utilities and Service Systems

The EIR would also address feasible mitigation measures, a reasonable range of alternatives, and additional mandatory sections as required by CEQA. The District would also prepare a mitigation monitoring and reporting program to address the potential significant impacts of the project.

Resource Areas Eliminated From Further Discussion in the EIR

Based on the existing conditions present at the project site and a review of the project, it has been determined that implementation of the project would not result in significant impacts related to agriculture and forestry resources, biological resources, cultural resources, hazards and hazardous materials, mineral resources, population and housing, public services, or utilities

and services systems. Therefore, these issues would be summarized in the Effects Found Not to Be Significant section of the EIR.

Agriculture and Forestry Resources

The project site is within an urbanized area that does not support any agricultural uses. According to the California Department of Conservation's San Diego County Important Farmland mapper (California Department of Conservation 2012), the project site is classified as "urban and built-up land," which does not contain any agricultural uses or areas designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, there are no Williamson Act contracts or forest lands in the project vicinity. Therefore, no impact would occur.

Additionally, the project site is located in an urbanized area that does not support any forestry uses. California's Forests and Rangelands: 2010 Assessment, completed as part of the California Department of Forestry and Fire Protection (CAL FIRE) Fire Resource Assessment Program (FRAP), provides an assessment of the state's inventory of forest land and identifies lands within the project site as Urban (CAL FIRE 2010). Because no forest land or timberland occur within the project site, the project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Therefore, implementation of the project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impacts on forestry resources would occur.

Biological Resources

The project is located in EMPS, a developed park dominated by grass and ornamental landscaping with no native habitat. No sensitive species habitat exists on-site and no work would be conducted within the bay. Therefore, less than significant impacts to candidate, sensitive, or special-status species identified by local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service would result.

While the project is located directly adjacent to the bay, storm water best management practices (BMPs) would be deployed during construction, and a permanent storm water treatment and drainage system would be installed on the site to properly collect and filter storm water from the project site before it enters the bay. Therefore, less than significant impacts to riparian habitat or sensitive natural communities identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife Services would occur.

No wetlands or vernal pools existing at the project site, and no work would be conducted within the bay. Therefore, no impact to federally protected wetlands as defined by Section 404 of the Clean Water Act would occur.

No work would be conducted within the bay. As previously discussed, BMPs would be employed during construction and a permanent storm water treatment and drainage system would be installed to properly divert and filter storm water from the project site before it enters the bay. While bird species are often seen flying over or perching on trees within the project site, it is not a foraging or nursery site as the EMPS consists of maintained landscaping and pavement. However, it is possible that native bird species covered by the Migratory Bird Species Act may nest within the ornamental trees/landscaping at the EMPS. The Symphony's construction contractor would conduct any required tree and landscaping removal outside of the nesting bird season, which is generally from March 1 through August 31 for most bird species.

This would prevent the disturbance of any nesting bird, as required by the Migratory Bird Species Act, during construction. The project design is streamlined with the surrounding development and is not anticipated to impede the movement of migratory birds. While photovoltaic panels would be installed for the project, they are not anticipated to cause a significant glare or reflection that would impact bird species due to its proximity to the reflective water of the bay. Therefore, no impact to native resident or migratory fish, migratory wildlife species and corridors, or to wildlife nursery sites would occur.

The project involves the construction of a permanent performance and event venue within the site of an existing temporary performance and event venue use. There is no tree preservation policy or ordinance in effect for the project site. The PMP provides for the protection of biological resources and states that the District will remain sensitive to the needs of and cooperate with communities and other agencies in both bay and tideline development. However, no construction would be conducted within the bay and the project would not result in impacts to biological resources. Therefore, the project would be consistent with the PMP policies pertaining to biological resources.

No adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP is in place that includes the project site or surrounding vicinity; however, the San Diego Bay Integrated Natural Resources Management Plan (INRMP) is a relevant plan that applies to the project area. The INRMP was prepared to guide planning, management, conservation, restoration, and enhancement of the bay ecosystem and to "ensure the long-term health, restoration, and protection of the Bay ecosystem in concert with the Bay's economic, naval, navigational, recreational, and fisheries needs" (United States Department of Navy 2013). The INRMP includes a vision for San Diego Bay, a detailed description of the current state of the ecosystem, and a pathway to change for proceeding toward the goal and vision. The project is not expected to change the ecosystem composition or result in a net loss of resources for birds, green sea turtles, fish, and marine mammals. Therefore, the project would not impede implementation of the INRMP and is consistent with the plan.

Cultural Resources

No historical resources or potentially eligible historical resources are located at the project site. Therefore, no impacts to historical resources would occur.

EMPS, in which the project is located, was constructed in 1976 entirely of clean fill material and is completely developed. There are no known archaeological sites within the project vicinity and there is very little to no potential for archaeological resources to be unearthed during construction. No impacts to archaeological resources would occur.

Additionally, there are no human burial sites in EMPS and very little to no potential for unknown human remains to be identified as the site is constructed entirely of fill and is completely developed. Therefore, no impact to human remains would occur.

Hazards and Hazardous Materials

The project site was constructed entirely of clean fill material and has not been exposed to any uses involving large quantities of hazardous materials. There are no known hazardous materials sites located in EMPS. Demolition activities are not anticipated to come into contact with lead- or asbestos-containing materials. Hazardous materials routinely used for construction projects would be used during construction of the project and would be similar to those used for the

setup and take down of the existing temporary performance and event venue. Additionally, substances such as cooking oils, cleaning products, and other chemicals would be used during operation of the project. However, quantities stored on-site would be small. All hazardous materials or potentially hazardous substances would be transported, used, and disposed of in accordance with all applicable regulations. The project would be required to comply with all applicable fire, building, and health and safety codes, which would eliminate any potential risk of upset. No hazardous materials, other than standard cleaning/maintenance and cooking substances, would be used or stored on the project site, similar to operation of the existing temporary performance and event venue. Upset and accident conditions involving these materials are not reasonable foreseeable as they would be used, stored, and disposed of in accordance with manufacturer's instructions and applicable regulations.

The project is located within Review Area 2 of the Airport Influence Area for the San Diego International Airport; therefore, airspace protection and overflight policies and standards apply to the project (San Diego County Regional Airport Authority 2014). Airport Land Use Commission (ALUC) review is required for projects with proposed increases in height limits within Review Area 2 that have received a Notice of Presumed Hazard, Determination of Hazard, or Determination of No Hazard subject to condition or would create specific hazards including glare, lighting, and bird attractants, among others. The project would not increase the maximum height (57 feet) at the site compared to the existing temporary performance and event venue; therefore, ALUC consultation is not required.

The project is also within one mile from the Naval Air Station North Island. An Airport Land Use Compatibility Plan for Naval Air Station North Island is currently being prepared; however, the project is not within an identified Accident Potential Zone (APZ) per the Airport Compatible Use Zones Update (Naval Base Coronado 2011). Therefore, the project would not conflict with an applicable airport land use plan and would not result in a safety hazard for people residing or working in the project area.

The District has an emergency preparedness plan related to emergencies on District tidelands to be followed in the event of an emergency. The project would not cause or contribute to any change in the existing emergency access to the project site and would not interfere with any adopted emergency response plan or emergency evacuation plan. The project would contain emergency exits and paths sufficient to provide the maximum event attendees emergency evacuation from EMPS.

Additionally, because the project is located adjacent to the San Diego Bay within an existing urban environment, it is well removed from wildlands and no impact related to wildland fire hazards would exist. Based on the above discussions of hazardous materials, airport hazards, emergency preparedness, and wildland fire, impacts associated with hazards and hazardous materials would be less than significant.

Mineral Resources

The project site is underlain by fill materials that were placed during previous improvements to the bayfront in the 1920s. The project site is fully developed and is not known to contain mineral resources that would be of future value to the region or state. The project site is mapped as Mineral Resource Zone-1 (MRZ-1) by the Conservation Element of the City of San Diego General Plan. MRZ-1 refers to areas in which adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for the presence of mineral deposits (City of San Diego 2008). In addition, the project is located within a highly active park area and even if mineral deposits were identified on-site, the potential for viable

extraction of minerals is limited. Therefore, no mineral resources would be lost as a result of the project and no impact would occur.

The project would result in a net increase in electricity consumption associated with the performance and event venue due to increased seating and number of events per year compared to existing conditions. However, the new concert facilities would include energy efficiency and sustainability features. Energy consumption per event associated with the project would be decreased compared to existing events. Therefore, the project would not result in the inefficient use of energy, and the impact would be less than significant.

Population and Housing

The project would not involve the development of new residences or businesses and would not directly or indirectly induce population growth. The majority of construction personnel is anticipated to commute from within San Diego County and would likely not require temporary housing. Therefore, there would be a negligible, temporary increase in local and regional population during construction of the proposed project. The Symphony does not anticipate increasing its existing number of employees from the approximately 260 necessary to operate the Bayside Summer Nights in order to operate the project. Though some patrons of concerts associated with operation of the project would travel from out of town, the majority of patrons are anticipated to be from within the San Diego region, and outside visitors would be temporary. In addition, the project does not include the extension of roads or other infrastructure that would indirectly induce substantial population growth. No impacts caused from population growth would occur.

In addition, the project would not displace housing and would not displace any number of people or require the construction of replacement housing as it is located on an existing park site on the San Diego bayfront where no housing exists. Thus, no housing or people would be directly displaced with implementation of the project and no impacts to housing would occur.

NOP COMMENTS

The NOP is available for a minimum 30-day public review period that starts on **Thursday, December 1, 2016 and ends at 4:30 p.m. on Friday, January 6, 2017**. Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017. Comments regarding the scope and content of the environmental information that should be included in the EIR and other environmental concerns should be sent to:

San Diego Unified Port District
Attn: Joseph Smith, AICP, Senior Planner
Real Estate Development-Development Services
3165 Pacific Highway, San Diego, CA 92101

or emailed to jdsmith@portofsandiego.org

PUBLIC SCOPING MEETING

A public scoping meeting to solicit comments on the scope and content of the EIR of the project will be held on **Monday, December 19, 2016 at 5:00 p.m. at the San Diego Unified Port District Administration Building, Training Room, 3165 Pacific Highway, San Diego, CA 92101.**

The District, as Lead Agency pursuant to CEQA, will review the public comments on the NOP to determine which issues should be addressed in the EIR.

Other opportunities for the public to comment on the environmental effects of the project include, but are not limited to, the following.

- A minimum 45-day public review period for the Draft EIR
- A public hearing before the Board of Port Commissioners to consider certification of the EIR

For questions regarding this NOP, please contact Joseph Smith, AICP, Senior Planner, in Real Estate Development-Development Services at (619) 686-6597.

ATTACHMENTS

Figure 1: Regional Map
Figure 2: Project Vicinity Map
Figure 3: Proposed Site Plan
Figure 4: Bayside Performance Park Site Layout
Figure 5: Public Access Plan
Figure 6: Oblique View of Proposed Bayside Performance Park

REFERENCES

California Department of Conservation. 2012. San Diego County Important Farmland. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sdg12_w.pdf.

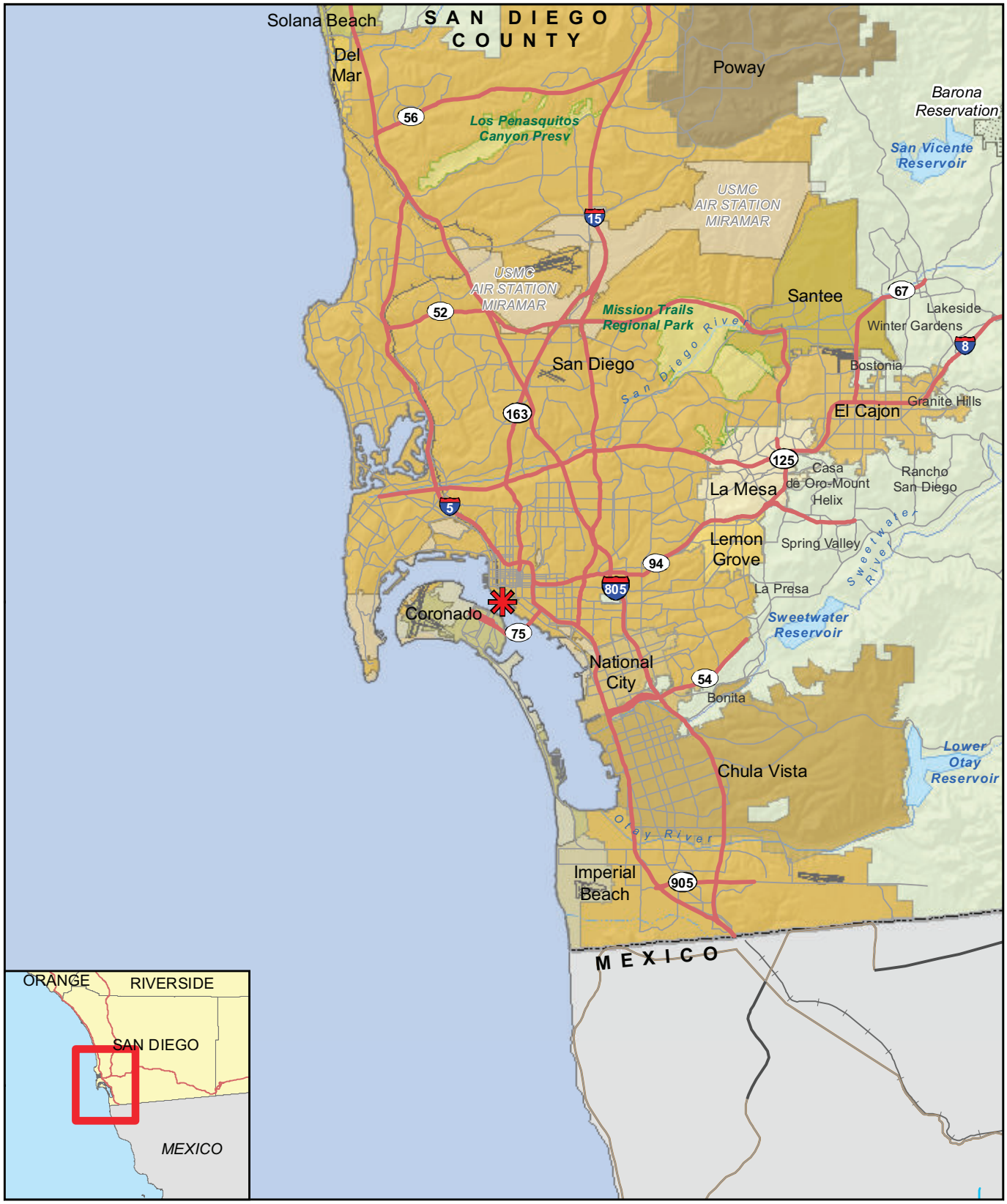
California Department of Forestry and Fire Resources (CAL FIRE). 2010. California's Forests and Rangelands: 2010 Assessment. http://frap.fire.ca.gov/assessment/2010/document.

City of San Diego. 2008. General Plan Conservation Element.

Naval Base Coronado. 2011. Air Installations Compatible Use Zones Update. Naval Air Station North Island and Naval Outlying Landing Field Imperial Beach. http://www.cnic.navy.mil/content/dam/cnic/cnrsw/Naval%20Base%20Coronado/Documents/2011%20NBC%20AICUZ%20Study%20(reduced%20size).pdf.

San Diego County Regional Airport Authority. 2014. San Diego International Airport, Airport Land Use Compatibility Plan. http://www.san.org/Portals/0/Documents/Land%20Use%20Compatibility/ SDIA/SDIA%20ALUCP%20Ch%201-6%20(May%202014).pdf.

United States Department of Navy and Port of San Diego. 2013. San Diego Bay Integrated Natural Resources Management Plan. https://www.portofsandiego.org/document/environment/natural-resources/5730-inrmp-september-2013/file.html.



Project Location

RECON

M:\JOBS5\8293\common_gis\fig1_nop.mxd 11/23/2016 ccn

FIGURE 1

Regional Map

Image Source: Nearmap (flown July 2016)

0 Feet 650

Project Location

RECON

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FIGURE 2

Project Vicinity Map

Map Source: Tucker Sadler

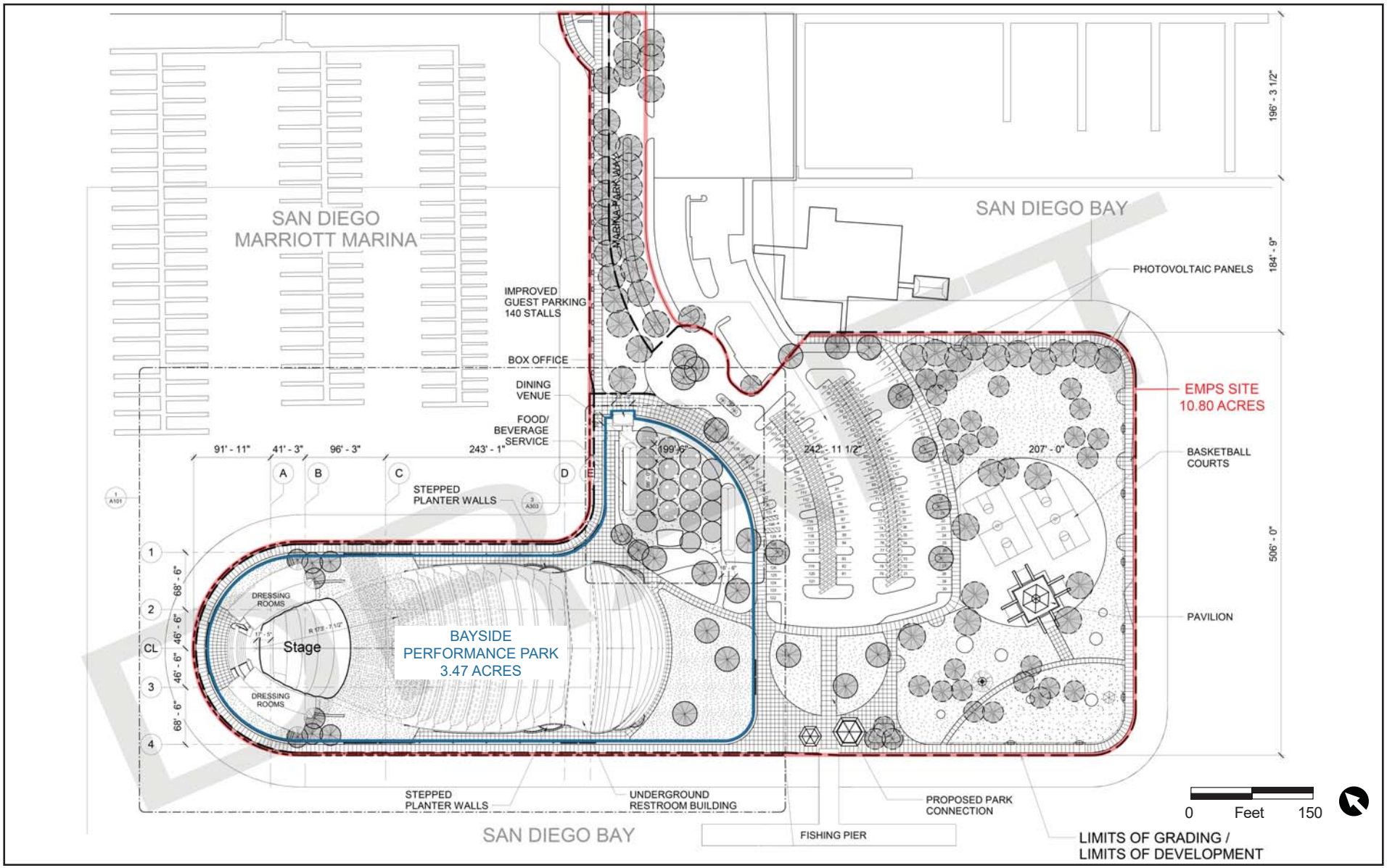
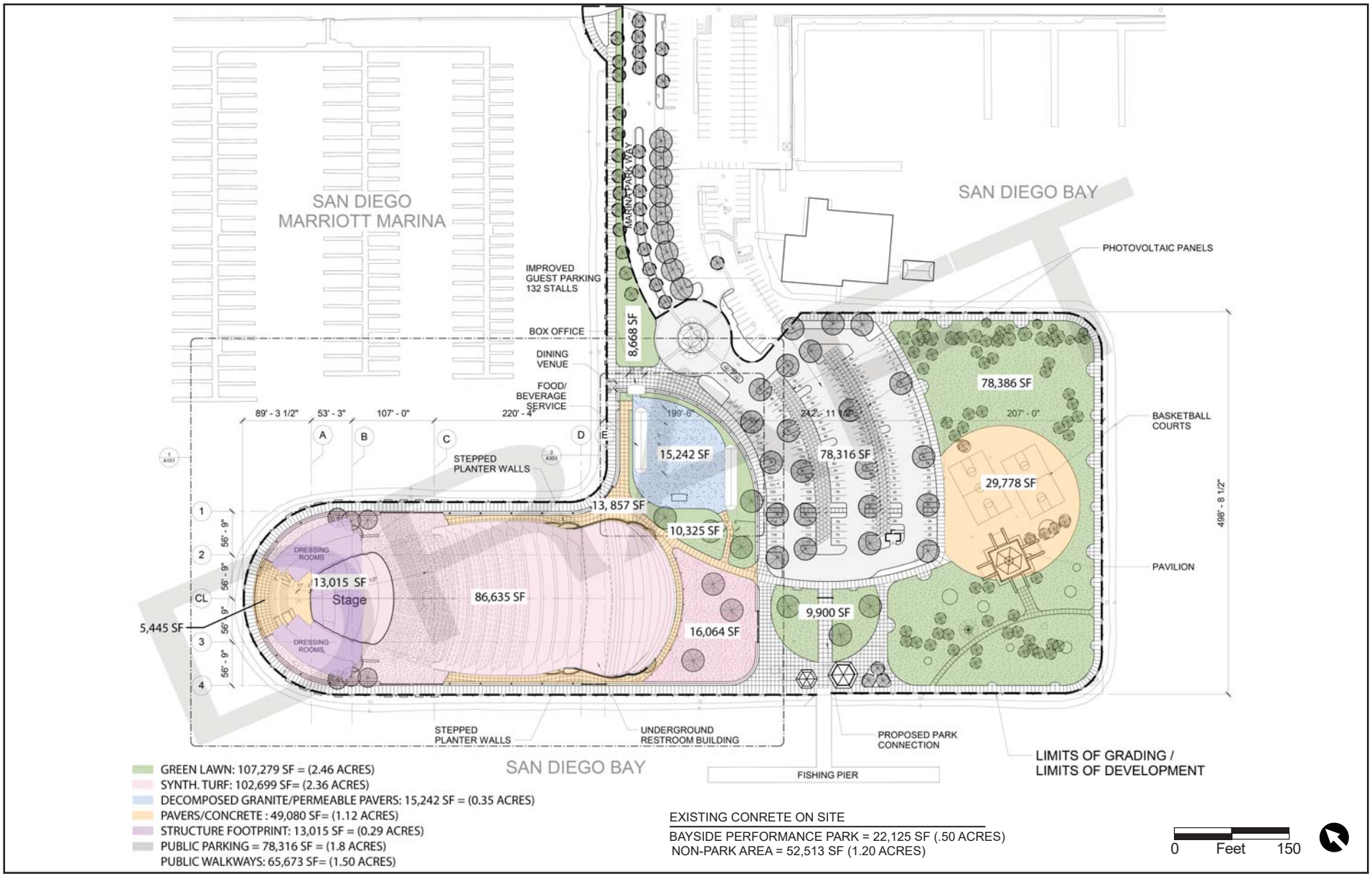


FIGURE 3
Proposed Site Map

RECON

M:\JOBS5\8293\env\graphics\NOP\fig3.ai 11/30/16 ccn

Map Source: Tucker Sadler



RECON

FIGURE 4
Bayside Performance Park Site Layout

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Map Source: Tucker Sadler

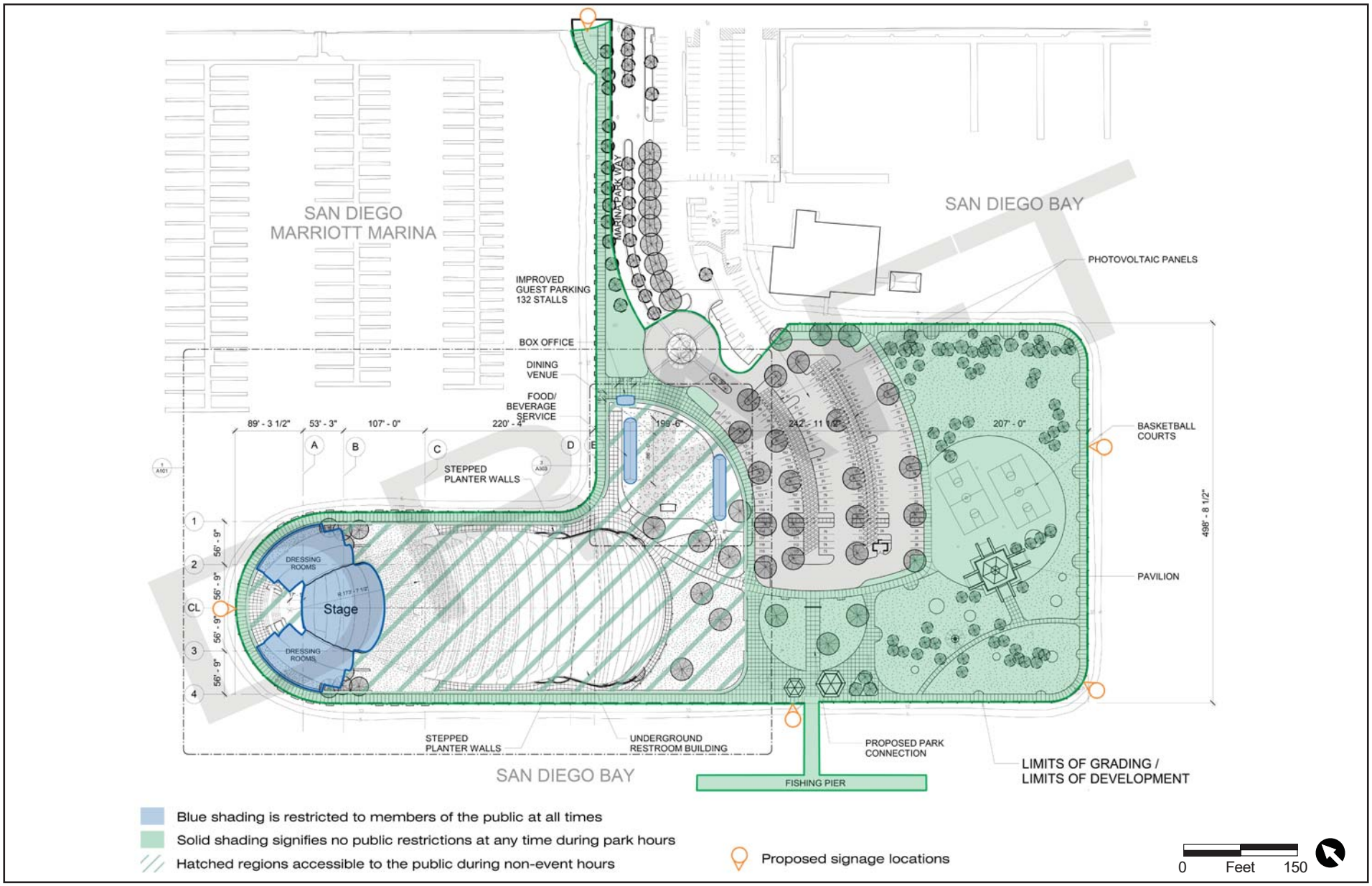

FIGURE 5
Public Access Plan

RECON

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Map Source: Tucker Sadler

FIGURE 6

Oblique View of Proposed Bayside Performance Park

RECON

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STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

RECEIVED
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SAN DIEGO UNIFIED
PORT DISTRICT
REAL ESTATE

Notice of Preparation

December 1, 2016

To: Reviewing Agencies

Re: Bayside Performance Park Enhancement Project and Port Master Plan Amendment
SCH# 2016121003

Attached for your review and comment is the Notice of Preparation (NOP) for the Bayside Performance Park Enhancement Project and Port Master Plan Amendment draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Joseph Smith
San Diego Unified Port District
Land Use Planning Department
P.O. Box 120488
San Diego, CA 92112-0488

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2016121003
Project Title Bayside Performance Park Enhancement Project and Port Master Plan Amendment
Lead Agency San Diego Unified Port District

Type NOP Notice of Preparation

Description Note: Review Per Lead

The project consists of the replacement and enhancement of structures in EMPS, as well as new facilities. Park enhancements include: (a) bayside performance park, a permanent performance and event venue and other public park enhancements located within the northwestern portion of EMPS; and (b) EMPS Enhancements, enhancements located within the central and southeastern portions of EMPS. The existing seasonal use of a temporary performance stage and other temporary amenities on the northwestern side of EMPS would be replaced by a permanent outdoor performance stage, acoustic shell, and ancillary facilities for year-round use by the symphony and other artists and events, such as rental events and community events.

Lead Agency Contact

Name Joseph Smith
Agency San Diego Unified Port District
Phone 619-686-6597 **Fax**
email
Address Land Use Planning Department
P.O. Box 120488
City San Diego **State** CA **Zip** 92112-0488

Project Location

County San Diego
City San Diego
Region
Cross Streets Marina Park Way, Convention Way
Lat / Long 32° 42' 10" N / 117° 9' 43" W
Parcel No. unparcelled gov land
Township **Range** **Section** **Base**

Proximity to:

Highways 75
Airports SD Intl, Naval Air Station North
Railways NCTD
Waterways SD Bay
Schools Charter school of SD, e3 Civic High Monarch School, Thomas Jeffe
Land Use Park/plaza

Project Issues

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 11; Regional Water Quality Control Board, Region 9

Date Received 12/01/2016 **Start of Review** 12/01/2016 **End of Review** 01/06/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

2016121003

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Bayside Performance Park Enhancement Project and Port Master Plan Amendment

Lead Agency: San Diego Unified Port District — Contact Person: Joseph Smith

Mailing Address: P.O. Box 120488 — Phone: 619-686-6597

City: San Diego — Zip: 92112-0488 — County: San Diego

Project Location: County: San Diego — City/Nearest Community: San Diego

Cross Streets: Marina Park Way, Convention Way — Zip Code: 92101

Longitude/Latitude (degrees, minutes and seconds): 32 ° 42 ′ 10 ″ N / 117 ° 9 ′ 43 ″ W Total Acres: 10.8

Assessor's Parcel No.: Unparcelled Government Land — Section: Pueblo Lands of San Diego — Twp.: N/A — Range: N/A — Base: N/A

Within 2 Miles: State Hwy #: 75 — Waterways: San Diego Bay

Airports: San Diego International Airport, Naval Air Station North Island — Railways: NCTD — Schools: Charter School of San Diego, e3 Civic High, Monarch School, Thomas Jefferson Law

Document Type:

CEQA:
- [x] NOP
- [ ] Early Cons
- [ ] Neg Dec
- [ ] Mit Neg Dec
- [ ] Draft EIR
- [ ] Supplement/Subsequent EIR (Prior SCH No.) _____
- Other: _____

NEPA:
- [ ] NOI
- [ ] EA
- [ ] Draft EIS
- [ ] FONSI

Other:
- [ ] Joint Document
- [ ] Final Document
- [ ] Other: _____

Governor's Office of Planning & Research
DEC 01 2016
STATE CLEARINGHOUSE

Local Action Type:

- [ ] General Plan Update
- [ ] General Plan Amendment
- [ ] General Plan Element
- [ ] Community Plan
- [ ] Specific Plan
- [ ] Master Plan
- [ ] Planned Unit Development
- [ ] Site Plan
- [ ] Rezone
- [ ] Prezone
- [ ] Use Permit
- [ ] Land Division (Subdivision, etc.)
- [ ] Annexation
- [x] Redevelopment
- [x] Coastal Permit
- [x] Other: Port Master Plan Amendment

Development Type:

- [ ] Residential: Units _____ Acres _____
- [ ] Office: Sq.ft. _____ Acres _____ Employees _____
- [ ] Commercial: Sq.ft. _____ Acres _____ Employees _____
- [ ] Industrial: Sq.ft. _____ Acres _____ Employees _____
- [ ] Educational: _____
- [x] Recreational: Embarcadero Marina Park South (EMPS)
- [ ] Water Facilities: Type _____ MGD _____
- [ ] Transportation: Type _____
- [ ] Mining: Mineral _____
- [ ] Power: Type _____ MW _____
- [ ] Waste Treatment: Type _____ MGD _____
- [ ] Hazardous Waste: Type _____
- [ ] Other: _____

Project Issues Discussed in Document:

- [ ] Aesthetic/Visual
- [ ] Agricultural Land
- [ ] Air Quality
- [ ] Archeological/Historical
- [ ] Biological Resources
- [ ] Coastal Zone
- [ ] Drainage/Absorption
- [ ] Economic/Jobs
- [ ] Fiscal
- [ ] Flood Plain/Flooding
- [ ] Forest Land/Fire Hazard
- [ ] Geologic/Seismic
- [ ] Minerals
- [ ] Noise
- [ ] Population/Housing Balance
- [ ] Public Services/Facilities
- [ ] Recreation/Parks
- [ ] Schools/Universities
- [ ] Septic Systems
- [ ] Sewer Capacity
- [ ] Soil Erosion/Compaction/Grading
- [ ] Solid Waste
- [ ] Toxic/Hazardous
- [ ] Traffic/Circulation
- [ ] Vegetation
- [ ] Water Quality
- [ ] Water Supply/Groundwater
- [ ] Wetland/Riparian
- [ ] Growth Inducement
- [ ] Land Use
- [ ] Cumulative Effects
- [ ] Other: _____

Present Land Use/Zoning/General Plan Designation:

Park/Plaza

Project Description: *(please use a separate page if necessary)*

The project consists of the replacement and enhancement of structures in EMPS, as well as new facilities. Park enhancements include: (a) Bayside Performance Park, a permanent performance and event venue and other public park enhancements located within the northwestern portion of EMPS; and (b) EMPS Enhancements, enhancements located within the central and southeastern portions of EMPS. The existing seasonal use of a temporary performance stage and other temporary amenities on the northwestern side of EMPS would be replaced by a permanent outdoor performance stage, acoustic shell, and ancillary facilities for year-round use by the Symphony and other artists and events, such as rental events and community events.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NOP Distribution List

County: San Diego

SCH# 2016121003

esources Agency

- **Resources Agency**
  Nadell Gayou
- ☐ **Dept. of Boating & Waterways**
  Denise Peterson
- ■ **California Coastal Commission**
  Elizabeth A. Fuchs
- ☐ **Colorado River Board**
  Lisa Johansen
- ☐ **Dept. of Conservation**
  Elizabeth Carpenter
- ☐ **California Energy Commission**
  Eric Knight
- ☐ **Cal Fire**
  Dan Foster
- ☐ **Central Valley Flood Protection Board**
  James Herota
- ☐ **Office of Historic Preservation**
  Ron Parsons
- **Dept of Parks & Recreation**
  Environmental Stewardship Section
- ☐ **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- ☐ **S.F. Bay Conservation & Dev't. Comm.**
  Steve Goldbeck
- ■ **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- ☐ **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- ☐ **Fish & Wildlife Region 1**
  Curt Babcock
- ☐ **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- ☐ **Fish & Wildlife Region 2**
  Jeff Drongesen
- ☐ **Fish & Wildlife Region 3**
  Craig Weightman
- ☐ **Fish & Wildlife Region 4**
  Julie Vance
- ■ **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- ☐ **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- ☐ **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- ☐ **Dept. of Fish & Wildlife M**
  William Paznokas
  Marine Region

Other Departments

- ☐ **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- ☐ **Depart. of General Services**
  Public School Construction
- ☐ **Dept. of General Services**
  Cathy Buck/George Carollo
  Environmental Services Section
- ☐ **Delta Stewardship Council**
  Kevan Samsam
- ☐ **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- ☐ **Delta Protection Commission**
  Erik Vink
- ☐ **OES (Office of Emergency Services)**
  Monique Wilber
- ■ **Native American Heritage Comm.**
  Debbie Treadway
- ■ **Public Utilities Commission**
  Supervisor
- ☐ **Santa Monica Bay Restoration**
  Guangyu Wang
- ☐ **State Lands Commission**
  Jennifer Deleong
- ☐ **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Cal State Transportation Agency CalSTA

- ■ **Caltrans - Division of Aeronautics**
  Philip Crimmins
- ☐ **Caltrans – Planning HQ LD-IGR**
  Terri Pencovic
- ■ **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- ☐ **Caltrans, District 1**
  Rex Jackman
- ☐ **Caltrans, District 2**
  Marcelino Gonzalez
- ☐ **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- ☐ **Caltrans, District 4**
  Patricia Maurice
- ☐ **Caltrans, District 5**
  Larry Newland
- ☐ **Caltrans, District 6**
  Michael Navarro
- ☐ **Caltrans, District 7**
  Dianna Watson
- ☐ **Caltrans, District 8**
  Mark Roberts
- ☐ **Caltrans, District 9**
  Gayle Rosander
- ☐ **Caltrans, District 10**
  Tom Dumas
- ■ **Caltrans, District 11**
  Jacob Armstrong
- ☐ **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- ☐ Airport & Freight
  Cathi Slaminski
  - ☐ Transportation Projects
    Nesamani Kalandiyur
  - ☐ Industrial/Energy Projects
    Mike Tollstrup
- ☐ **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- ☐ **State Water Resources Control Board**
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- ☐ **State Water Resources Control Board**
  Div. Drinking Water #_____
- ☐ **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- ☐ **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- ☐ **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- ☐ **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- ☐ **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- ☐ **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- ☐ **RWQCB 3**
  Central Coast Region (3)
- ☐ **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- ☐ **RWQCB 5S**
  Central Valley Region (5)
  - ☐ **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - ☐ **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- ☐ **RWQCB 6**
  Lahontan Region (6)
  - ☐ **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- ☐ **RWQCB 7**
  Colorado River Basin Region (7)
- ☐ **RWQCB 8**
  Santa Ana Region (8)
- ■ **RWQCB 9**
  San Diego Region (9)

☐ **Other** _____

☐ _____
Conservancy

Last Updated 7/19/2016

NOP Comment Letter #1

Joseph Smith

From: Steinert, Kurtis <KSteinert@sandiego.gov>
Sent: Wednesday, December 28, 2016 2:24 PM
To: Joseph Smith
Subject: RE: BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT AND PORT MASTER PLAN AMENDMENT

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PORT DISTRICT
REAL ESTATE

Mr. Smith

That timing will be fine. Thank you.

Kurt Steinert
619.235.5206

From: Joseph Smith [mailto:jdsmith@portofsandiego.org]
Sent: Wednesday, December 28, 2016 2:21 PM
To: Steinert, Kurtis <KSteinert@sandiego.gov>
Subject: RE: BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT AND PORT MASTER PLAN AMENDMENT

Mr. Steinert, received and thank you for letting us know. To accommodate, we can extend the NOP comment period for the City of San Diego to Wednesday, January 11 at 5:00 p.m.

Let me know if this timing will suffice. 1

Take care and happy holidays,

Unified Port of San Diego

Joseph D. Smith, AICP
Department Manager, Development Services
Real Estate Development
PORT OF SAN DIEGO
3165 Pacific Highway • San Diego, CA 92101
Office: 619.686.6597

Port administration offices are open Monday-Thursday and every other Friday from 8am-5pm.
This email is public information and may be viewed by third parties upon request.

From: Steinert, Kurtis [mailto:KSteinert@sandiego.gov]
Sent: Wednesday, December 28, 2016 2:06 PM
To: Joseph Smith
Subject: BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT AND PORT MASTER PLAN AMENDMENT

Dear Mr. Smith,

The City of San Diego received the Notice of Preparation for the above named project. City staff is currently reviewing the NOP and are planning to make comments; however because of the holiday season a number of staff members have not had a chance to review. While we will make every effort to have our response to you by January 6th, it might be delayed a day or two.

Kurtis Steinert, AICP

Senior Planner, Environment and Policy Analysis
City of San Diego
Planning Department
1010 Second Ave, Ste 1200 , MS 413, San Diego, CA 92101
619.235.5206
ksteinert@sandiego.gov

CONFIDENTIAL COMMUNICATION
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The City of
SAN DIEGO
Planning Department

NOP Comment Letter #2

January 13, 2017

San Diego Unified Port District
Real Estate Development-Development Services
3165 Pacific Highway
San Diego, CA 92101

Attention: Joseph Smith

Reference/Subject: Notice of Preparation of a Draft Environmental Impact Report for the Bayside Performance Park Enhancement Project & Port Master Plan Amendment

Dear Mr. Smith:

The City of San Diego ("City") Planning Department has received the Notice of Preparation (NOP) prepared by the San Diego Unified Port District (Port) and distributed it to applicable City departments for review. The City, as a Responsible Agency under CEQA, has reviewed the NOP and appreciates this opportunity to provide comments to the Port. In response to this request for public comments on the NOP and the scope of the EIR, the City has identified potential environmental issues that may result in a significant impact to the environment and should be analyzed further in the Draft Environmental Impact Report (DEIR). The following are comments on the NOP and the scope of the Draft EIR for your consideration.

Development Services Department, Transportation Development – Jim Lundquist, Associate Engineer - Traffic – 619-446-5396

- It is recommended that the Transportation Impact Analysis in the DEIR should follow the guidelines of the *City of San Diego Traffic Impact Study Manual, July 1998*, including various scenarios to be included, for all transportation facilities within the City of San Diego evaluated. 1
- It is recommended that the Transportation Impact Analysis in the DEIR should apply the *City of San Diego Significance Determination Thresholds, January 2011* for all transportation facilities within the City of San Diego evaluated. 2
- It is recommended that the Transportation Impact Analysis in the DEIR should include evaluation of impacts during the construction of the project. 3
- The project description states that the expansion of the capacity of the park events to a maximum of 10,000 seats with four additional parking spaces is proposed. The DEIR should explain what programs will be implemented to accommodate the expanded venue capacity without creating demand for additional parking. 4
- The DEIR should include alternatives that avoid or lessen expected transportation/circulation/parking impacts, including at least one alternative that would avoid any unmitigated significant impacts to the City of San Diego's transportation facilities. 5

Transportation & Storm Water Department Storm Water Division – Vicki Kalkirtz, Senior Planner – 858-541-4326

- Pages 6 and 7 of the Notice of Preparation (NOP) describe "Sustainability Features" that are part of the Project Description, including a modular wetland/storm water treatment and drainage system throughout the entire Embarcadero Marina Park South, and lawn areas composed of commercial grade, sand-based synthetic turf to reduce water consumption and maintenance requirements. The San Diego Bay Water Quality Improvement Plan identifies dissolved copper, lead and zinc as high priority pollutants, and rubber-based artificial turf has been shown to leach metals in storm water runoff. This proposal specifically mentions sand will be used as the base for the artificial turf, and the City of San Diego Storm Water Division requests sand also be used as the base in any other alternative designs incorporating artificial turf. It is also requested that the DEIR address any constraints in installing this material on sloping areas during project implementation to assure drainage and treatment systems perform as intended. 6
- Page 8 of the NOP appropriately includes "Hydrology and Water Quality" and "Utilities and Energy Use" among the "Probable Environmental Effects to Be Addressed in the EIR." Components of the City of San Diego storm drain system, including storm drain lines and outlets, are located at the inland edge of the project site and in the surrounding area. Please address any potential effects of project construction and operation, including potential cumulative project effects involving other proposed projects in the vicinity, in the Draft Environmental Impact Report (EIR). Some drainage facilities are tidally influenced. Please contact the City Storm Water Division for any information needed regarding City drainage facilities in the area, or other questions involving City responsibilities for drainage facilities and water pollution prevention. 7

Again, we appreciate the opportunity to provide comments on the Port Draft EIR. Please contact me directly at (619) 533-3103 if there are any questions regarding the contents of this letter or if the Port District would like to meet with City staff to discuss our comments.

Sincerely,

Alyssa Muto, Deputy Director
Planning Department

cc: Reviewing Departments (via email)
Review and Comment online file

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JAN 03 2017
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PORT DISTRICT
REAL ESTATE

NOP Comment Letter #3

CITY OF CORONADO

1825 STRAND WAY
CORONADO, CA 92118

OFFICE OF THE CITY MANAGER
(619) 522-7335
FAX (619) 522-7846

December 28, 2016

Mr. Joseph Smith
Real Estate Development Services
3165 Pacific Highway
San Diego, CA 92101

Dear Mr. Smith:

This letter is in response to the Notice of Preparation of a draft Environmental Impact Report for the Bayside Performance Park Enhancement Project and Port Master Plan Amendment. We have reviewed the project description and met with representatives of the San Diego Symphony, who have described the project to us. Our comments regarding the scope and content of the environmental information and analyses that should be included and addressed in the EIR are set forth below:

Noise

The EIR and technical analysis needs to address noise impacts from the Performance Park activities. Sound from current activities at the existing summertime performance venue impact residents of Coronado, and it is anticipated that an all-year-round venue will create additional significant noise impacts. Varied atmospheric conditions contribute to noise levels across the bay. The EIR needs to identify and address these impacts and suggest mitigation measures to address them. Sound monitoring equipment and monitoring in Coronado, limits on hours of operation and the type of performances should be considered. 1

Additionally, cumulative impacts from other noise sources should be analyzed and addressed in the EIR. Specifically, impacts of noise from the County Administrative Center's Water Park concert venue on Coronado residents should be considered. 2

Ferry Service

The EIR should address ferry service as a transportation alternative to and from the venue from Coronado and perhaps elsewhere on the bay. Enhancements to the current level of service should be given consideration to mitigate potentially significant traffic impacts. 3

Recreation

The EIR should address impacts related to the potential displacement of recreational activities from the bayside performance park venue to Tidelands Park in Coronado. We do not want the pace and tempo of activities in Tidelands Park to accelerate as a result of the development of the year-round performance venue at South Embarcadero Park. 4

Thank you for addressing our issues. Please contact Community Development Director Rachel Hurst at rhurst@coronado.ca.us or (619) 522-7338 if you have any questions or need additional information.

Sincerely,

Blair King
City Manager

cc: Honorable Mayor and City Council
Randa Coniglio, President and CEO, Unified Port of San Diego
Garry Bonelli, Port Commissioner
Rachel Hurst, Director of Community Development

NOP Comment Letter #4

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

Edmund G. Brown Jr., Governor

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December 9, 2016

Joseph Smith
San Diego Unified Port District
Land Use Planning Department
P. O. Box 120488
San Diego, CA 92112-0488

sent via e-mail:
jdsmith@portofsandiego.org

RE: SCH# 2016121003; Bayside Performance Park Enhancement Project and Port Master Plan Amendment, Notice of Preparation for Draft Environmental Impact Report, San Diego County, California

Dear Mr. Smith:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE). 1

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply. 2

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.** 3

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes: 4
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation if Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)). 4 contd

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:
   i. Planning and construction to avoid the resources and protect the cultural and natural context.
   ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
   i. Protecting the cultural character and integrity of the resource.
   ii. Protecting the traditional use of the resource.
   iii. Protecting the confidentiality of the resource.
c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

4 contd

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
   a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
   b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

5

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason,

6

we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/ 6 contd

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
   a. If part or all of the APE has been previously surveyed for cultural resources.
   b. If any known cultural resources have been already been recorded on or adjacent to the APE.
   c. If the probability is low, moderate, or high that cultural resources are located in the APE.
   d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE. 7
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

NOP Comment Letter #5

Joseph Smith

From: John Sexton
Sent: Thursday, December 01, 2016 11:55 AM
To: Joseph Smith
Subject: Bayside Performance Park Enhancement Project

Follow Up Flag: Follow up
Flag Status: Flagged

RECEIVED
DEC 01 2016
SAN DIEGO UNIFIED
PORT DISTRICT
REAL ESTATE

Dear Mr. Smith;

I am glad to hear of the likely improvement in the performance area at the Embarcadero Marina Park South; however, a number of us near the bay in Coronado have grave concern about the potential disturbance by music that violates the San Diego Noise Ordinance. 1

I have pasted below my email string from July 23rd that has yet to receive a response from the Port.

Please tell us that the Port will either adhere to or will choose to violate the San Diego Noise Ordinance.

Sincerely,
Dr. John Sexton

John Sexton

to jhutzelm, bcc: me, bcc: Gary

Hello Jim,

My neighbor, Gary Smith, shared with me the following email:

From: Jim Hutzelman
Date: July 7, 2016 at 9:31:53 AM PDT
To:
Subject: RE: Concert Noise Complaint

Dear Dr. Smith,

Thank you for your email regarding the event that took place on June 17-18, 2016 in the Port of San Diego's Embarcadero Marina Park North.

In response to your request for information: 2

- The Port of San Diego requirements related to sound levels at events is contained in our special event permit, which states the following:

Music entertainment may be amplified through a sound system but the sound levels must be no higher than 85 decibels and acceptable to the surrounding community. A Harbor Police officer or other law enforcement representative who determines that noise from your event is excessive may require you to take corrective action including ceasing the use of amplified sound.

- We are not privy to the contract between the permitee/event organizer and their performers. The permitee is responsible for the sound level at their event.
- The Port of San Diego does not monitor and record sound levels. The San Diego Harbor Police check the sound board at events as well as listen to the sound level to determine if it appears excessive in impact to the surrounding community.
- The San Diego Harbor Police (non-emergency) dispatch number, (619) 686-76272 is the number to call after hours with complaints about sound levels emanating from Port of San Diego parks and facilities.

2 contd

Having received other complaints regarding the sound level from this event, our Port of San Diego staff has informed the event organizer, who will take measures to reduce the sound impacts of next year's event, if it is held in a Port of San Diego facility.

Sincerely,

Jim

I am very pleased to hear that the Oyster Festival music might be at a more acceptable level in the future.

3

When I spoke with a Harbor Police Officer on 17 June about the loudness, he said he had no way of measuring it. I told him about the free cell phone app to measure decibels. The Officer added that in more than 5 years on the force, he had never heard of the noise ordinance.

I am concerned with the increasing numbers of events at that Park that have music levels that are not reasonable. For example, last night's concert at the North Embarkadaro Park had a decibel meter reading of 78 decibels after 9 pm at my home, which is greater than 900 meters from the Park. The sound near the stage had to be well above the limits.

4

In medical school, we were taught that 85 or greater decibels cause hearing loss when it is sustained for a period of time.

Many city and county ordinances have decibel limits closer to 65. Maybe you could share with me the reference that permits 85 decibels at that Park.

4 contd.

I pasted below San Diego's noise ordinance as a point of reference.

Thank you for your time and attention to this matter!

john

http://docs.sandiego.gov/municode/MuniCodeChapter05/Ch05Art9.5Division04.pdf

Sec. 59.5.0401 Sound Level Limits

A. It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

TABLE OF APPLICABLE LIMITS

Land Use Zone	**Time of Day**	**One-Hour Average Sound Level (decibels)**
1. Residential: All R-1	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7a.m.	50 45 40
2. All R-2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7a.m.	55 50 45
3. R-3, R-4 and all other Residential	7 a.m. to 7 p.m.	60

	7 p.m. to 10 p.m. 10 p.m. to 7a.m.	55 50
4. All Commercial	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7a.m.	65 60 60
5. Manufacturing all other Industrial, including Agricultural and Extractive Industry	any time	75

B. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. Permissible construction noise level limits shall be governed by Sections 59.5.0404 of this article.
C. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of Part A. of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.
D. This section does not apply to firework displays authorized by permit from the Fire Department.
E. This section does not apply to noise generated by helicopters at heliports or helistops authorized by a conditional use permit, nor to any roller coaster operated on City-owned parkland. (Amended 9-11-89 . by O-17337 NS.)

If you suspect the City's Noise Ordinance is being violated, contact the Noise Abatement Office at **(619) 236-5500.** Noise complaints are generally prioritized by the number of complainants residing in separate residences. Noise complaints involving only one complainant are usually considered to be private matters between the parties.
http://www.sandiego.gov/nccd/noise/index.shtml

(Municipal Code Section 59.5.0101et seq.)

SD County:

www.**sandiego**county.gov/cob/**ordinances**/ord9962.doc

John Sexton

to jhutzelm, bcc: me

Hello Jim,

Since I had not heard from you, I am re-sending the message I sent to you in July.

5

Today I measured decibels exceeding 74 from music in the Embarcadero Marina Park South area. My home is more than 900 meters away.

Sec. 59.5.0401 Sound Level Limits states "*It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced.* 5 contd
That table indicates the music within the Park should have been no louder than **65 decibels.**

Please tell me how you will have the law enforced or refer me to someone who will ensure the law is enforced.

Sincerely,
Dr. John Sexton

John Sexton

to **rconiglio**, **customerservic.**, bcc: me

Please assist me in getting a response to my concern that amplified music and announcements from the Embarcadero Park(s) often exceed San Diego's Noise Ordinance.

NOP Comment Letter #6

Joseph Smith

From: John Sexton
Sent: Wednesday, December 21, 2016 11:56 AM
To: Joseph Smith
Subject: Noise From Bayside Performance Park

RECEIVED
DEC 21 2016
SAN DIEGO UNIFIED
PORT DISTRICT
REAL ESTATE

Dear Mr. Smith;

The laws of most major cities in the US are similar to San Diego's Noise Ordinance. This link below supports that statement. https://www.noisefree.org/Noise-Ordinance-Manual.pdf

Most cities require that amplified music not exceed 65 decibels outside the perimeter of place where the music is created. 1

The Port believes that the 95 decibels of music generated at their Embarcadero Marina Park would not violate the law, even though it is extremely disturbing to those outside the park's perimeter.

May the music from the Port's park legally violate the City of San Diego Noise Ordinance?

I respectfully request that you verify that this comment will be included in the EIR.

Sincerely,
Dr. John Sexton

Comment Letter #7

Joseph Smith

RECEIVED
JAN 06 2017
SAN DIEGO UNIFIED PORT DISTRICT REAL ESTATE

From: Charles and Peggee Cuson
Sent: Friday, January 06, 2017 8:12 AM
To: Joseph Smith
Cc: Heather Taylor; Allen Porter
Subject: Comments regarding draft environmental impact report for Bayside Performance Park Enhancement Project

We are residents of Coronado, CA. We live at 1431 1st Street in a 23 unit condominium complex which faces San Diego Bay and downtown San Diego. At times loud noises come from across the bay when activities, usually very loud music, are conducted on the waterfront. Please pay particular attention to the noise evaluation in the environmental impact study. It is possible that the planned stage and acoustic shell could focus noise toward Coronado, or bounce it off downtown buildings in multiple directions. 1

Charles and Peggee Cuson

NOP Comment Letter #8

RECEIVED
JAN 06 2017
SAN DIEGO UNIFIED
PORT DISTRICT
REAL ESTATE

January 5, 2017

Joseph Smith, AICP
San Diego Unified Port District
Real Estate Development – Development Services
3165 Pacific Highway
San Diego, CA 92101

Submitted via email to: jdsmith@portofsandiego.org

RE: BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT & PORT MASTER PLAN AMENDMENT NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT (UPD #EIR-2016-176) COMMENTS BY MARK G. STEPHENS, AICP

Dear Mr. Smith:

Thank you for the opportunity to attend the December 19, 2016 public scoping meeting and to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the proposed Bayside Performance Enhancement Project and Port Master Plan Amendment. Please extend my appreciation to members of the San Diego Symphony Orchestra Association team involved. Seeing a good turn out and the project proponents' attentive interest in public input was encouraging and gratifying. The project site's bayside setting in a public park area offering inspiring views of the Downtown skyline and around San Diego Bay makes this a truly special location warranting the most thoughtful and sensitive treatment, and collaborative efforts. Comments on the scope and content of the environmental document follow.

- Visual and aesthetic considerations are paramount. Please include accurate visual simulations comparing existing conditions side-by-side with proposed project views. This should include various view points on the bayside promenade, focusing on a pedestrian's eye level, and more distant points, such as from the Convention Center viewing platform and Coronado across the bay. 1

- Also key is addressing potential adverse effects on recreational use of the park area and the loss of natural turf area and a number of trees. The project description already goes some distance in committing to maintaining public access and use outside of event times. I feel opportunities could be enhanced in the far (southeast) side of the overall site. Please indicate where the refurbished fitness course facilities discussed would be located. 2

- Please also address the extent, timing and duration of disruptions during the construction process. Contingency plans are advisable given inherent challenges of working in the coastal zone and the potential for delays. 3

- Depending on the type, volume, timing (how late) and frequency of events, noise is an important consideration. 4

- Crowd management (including coming and going) with the significantly increased maximum capacity (from around 3,000 to 10,000 is what I think was cited) is another important consideration. 5

- Likewise, careful planning, design and management for handling trash and recyclables, and preventing pollution (including windblown materials) are critical. 6

Other practical considerations that may not fall within the realm of environmental analysis, but could literally make or break the project deal with design, management and maintenance, and include constructively dealing with the large transient population, preventing injuries and damage from activities such as skateboarding on staircases, controlling graffiti, and protecting the shell from birds. 7

Two other observations not directly related to this NOP are:

- The ill-conceived Fifth Avenue Landing Project and Port Master Plan Amendment proposal (that would build over the top of part of the public bayside promenade) also currently under environmental review would be entirely incompatible with the Symphony's proposal, providing another reason (among many) for simply denying the inappropriate Fifth Avenue Landing request. (Please refer to my September 15, 2016 letter to the Port on the NOP for the Fifth Avenue Landing Project Draft EIR.) 8

- The Verizon Wireless telecommunications facility recently installed by displacing public park land directly across from the Crab Shack restaurant should be relocated to another more appropriate (e.g., industrial) site as soon as feasible. We already have a Sprint telecommunications building and a "stealth" antenna facility in the park, and the new Verizon facility is plainly visible, completely unscreened, and has sandbags stacked around it to unsuccessfully prevent erosion caused by the grade differential and clearing of vegetation. Relocation will remove an eyesore and free up public park space. (I would be happy to provide photos if you're unfamiliar with this facility.) 9

The Symphony's project should also be cognizant of the Port's Central Embarcadero redevelopment effort, and proposed plans of the 1HWY1/Protea/Gafcon/Seaport San Diego team, as well as pending redevelopment activities at the Tenth Avenue Marine Terminal. It was good to see the Convention Center, a key neighbor, represented at the scoping meeting. 10

In closing, I would again emphasize how crucial an open process and continuing to reach out and engage the public will be in working collaboratively to make this project the success that everyone would like to see. Please provide notification of any subsequent opportunities for public input regarding this proposal, via email to msdesmtnsea@hotmail.com, or sent to the address below. Thank you for your consideration, and I look forward to participating! 11

Sincerely,

Mark G. Stephens

Mark G. Stephens, AICP
500 W. Harbor Dr., Unit 514
San Diego, CA 92101

NOP Comment Letter #9

Bayside Performance Park Enhancement Project
& Port Master Plan Amendment
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: SETH GOLDMAN

ORGANIZATION: SD SYMPHONY

MAILING ADDRESS: 1210 INDIA STREET, SD 92101

EMAIL ADDRESS: SGOLDMAN@SANDIEGOSYMPHONY.ORG

****

COMMENTS: FULLY SUPPORT THIS PROJECT. I'M SO EXCITED FOR THE OPPORTUNITY TO MAKE SUCH A POSITIVE IMPACT ON OUR CITY. 1

Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017.
Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Joseph Smith, Real Estate Development
P.O. Box 120488, San Diego, CA 92112-0488

or email to: jdsmith@portofsandiego.org

Questions? Contact Joseph Smith, AICP, Department Manager, at (619) 686-6597

NOP Comment Letter #10

Bayside Performance Park Enhancement Project
& Port Master Plan Amendment
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: Riley D Mixson

ORGANIZATION: Symphony Board

MAILING ADDRESS: 3512 Pickwick St, San Diego 92106

EMAIL ADDRESS: RMixson822@AOL.com

****

COMMENTS: Terrific Meeting. Speaker did a terrific job in getting the point across. I sense this project will be accomplished although more work to do especially with the environmental community.

1

Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017.
Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Joseph Smith, Real Estate Development
P.O. Box 120488, San Diego, CA 92112-0488

or email to: jdsmith@portofsandiego.org

Questions? Contact Joseph Smith, AICP, Department Manager, at (619) 686-6597

NOP Comment Letter #11

Bayside Performance Park Enhancement Project
& Port Master Plan Amendment
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: Penny Wing

ORGANIZATION: Broyre LLC

MAILING ADDRESS: 645 FRONT ST 2202 SD. 92101

EMAIL ADDRESS: Penny@broyure.com

****

COMMENTS: I am a resident of Downtown San Diego and a board member on the Symphony. Very excited about the project and the impact on the community as well as the thousands of visitors to San Diego. 1

Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017.
Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Joseph Smith, Real Estate Development
P.O. Box 120488, San Diego, CA 92112-0488

or email to: jdsmith@portofsandiego.org

Questions? Contact Joseph Smith, AICP, Department Manager, at (619) 686-6597

NOP Comment Letter #12

Bayside Performance Park Enhancement Project
& Port Master Plan Amendment
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: Janet Gorrie

ORGANIZATION: S.D.S.O.

MAILING ADDRESS:

EMAIL ADDRESS: janet.gorrie@gmail.com

****

COMMENTS:

This project would be a jewel for San Diego. It is a beautiful setting, enjoyed by many, but just during the summer. Los Angeles has the Hollywood Bowl. San Diego Symphony Orchestra needs this to make the symphony complete. Our symphony and city will be greatly enhanced by this project. The Midway Museum has become a stupendous success — let's do this! 1

Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017.
Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Joseph Smith, Real Estate Development
P.O. Box 120488, San Diego, CA 92112-0488

or email to: jdsmith@portofsandiego.org

Questions? Contact Joseph Smith, AICP, Department Manager, at (619) 686-6597

NOP Comment Letter #13

Bayside Performance Park Enhancement Project
& Port Master Plan Amendment
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: JULIA BROWN

ORGANIZATION: SAN DIEGO SYMPHONY BOARD

MAILING ADDRESS: 11480 FORESTVIEW. LANE

EMAIL ADDRESS: jbrown@san.rr.com

****

COMMENTS:

LOVE THIS PROJECT

GOOD FOR ALL SAN DIEGANS

GOOD FOR TOURISTS/VISITORS

LET'S GET IT DONE!

1

Written comments will be accepted until 4:30 p.m. on Friday, January 6, 2017.
Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Joseph Smith, Real Estate Development
P.O. Box 120488, San Diego, CA 92112-0488

or email to: jdsmith@portofsandiego.org

Questions? Contact Joseph Smith, AICP, Department Manager, at (619) 686-6597

DRAFT INITIAL STUDY / CHECKLIST

SAN DIEGO SYMPHONY
BAYSIDE PERFORMANCE PARK PROJECT
SAN DIEGO, CA

Lead Agency:

San Diego Unified Port District
P.O. Box 120488
San Diego, CA 92112-0488
(619) 686-6282

CEQA Consultant:

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101

February 2017

DRAFT INITIAL STUDY / CHECKLIST

SAN DIEGO SYMPHONY
BAYSIDE PERFORMANCE PARK PROJECT
SAN DIEGO, CA

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San Diego Unified Port District
P.O. Box 120488
San Diego, CA 92112-0488

DRAFT INITIAL STUDY / CHECKLIST FOR SAN DIEGO SYMPHONY BAYSIDE PERFORMANCE PARK PROJECT SAN DIEGO, CA

1.	**Project Title:**	San Diego Symphony Bayside Performance Park Project
2.	**Lead Agency Name and Address:**	San Diego Unified Port District P.O. Box 120488 San Diego, CA 92112-0488
3.	**Contact Person and Phone Number:**	Candice D. Magnus 760-642-8261
4.	**Project Location:**	200 and 206 Marina Park Way San Diego, CA 92101
5.	**Project Sponsor's Name and Address:**	San Diego Symphony 1245 Seventh Avenue San Diego, CA 92101
6.	**Port Master Plan Designation:**	Planning District 3 (Centre City/Embarcadero), Marina Zone Subarea, Park/Plaza designation
7.	**Zoning:**	Pursuant to Section 19 of the Port Act, zoning does not apply within the District's jurisdiction. See the Port Master Plan designation above.
8.	**Description of Project:**	See Chapter 3, Project Description, of the EIR.
9.	**Surrounding Land Uses and Setting:**	See Chapter 2, Environmental Setting, of the EIR.

10. Other Public Agencies Whose Approval is Required: California Coastal Commission

Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☒ Biological Resources
- ☒ Greenhouse Gas Emissions
- ☐ Land Use/Planning
- ☐ Population/Housing
- ☒ Transportation/Traffic (Parking)
- ☐ Agricultural and Forestry
- ☐ Cultural Resources
- ☐ Hazards and Hazardous Materials
- ☐ Mineral Resources
- ☐ Public Services
- ☐ Utilities/Service Systems
- ☐ Air Quality
- ☐ Geology/Soils
- ☐ Hydrology/Water Quality
- ☒ Noise
- ☐ Recreation
- ☐ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
Printed Name	For

I. INITIAL STUDY

A. Project Description

The proposed Bayside Performance Park Enhancement Project (project) includes the redevelopment of the existing Embarcadero Marina Park South (EMPS). The redevelopment would include the enhancement of park amenities throughout EMPS and construction of a performance venue within a portion of EMPS named the Bayside Performance Park. The project includes discretionary actions including the certification of a Port Master Plan (PMP) Amendment (PMPA) by the California Coastal Commission; approval of a non-appealable Coastal Development Permit (CDP) by the San Diego Unified Port District (District); approval of a Real Estate Agreement between the District and San Diego Symphony (Symphony or applicant); and a Municipal Separate Storm Sewer System (MS4) permit stormwater conformance determination by the District.

B. Compatibility with Zoning and Applicable Plans

Existing Land Use Designation

The project site is designated Park/Plaza in the certified PMP. Pursuant to Section 19 of the Port Act, zoning does not apply within the District's jurisdiction.

Adjacent Land Use Designations

The immediately adjacent land uses designated by the PMP include: Recreational Boat Berthing (to the north), Boat Navigation Corridor (to the west and southwest), Ship Navigation Corridor (to the southeast and east), and Commercial Recreating (to the east). Though not immediately adjacent to the project site, a Specialized Berthing land use designation also exists to the east of the project site.

The immediately adjacent Commercial Recreation land use currently supports a Joe's Crab Shack restaurant. The further surrounding Commercial Recreation area includes the San Diego Convention Center, Hilton San Diego Bayfront Hotel, and Marriott Marquis San Diego Marina, and Fifth Avenue Landing.

Identification of Environmental Impacts

Based on the assessment presented in this Initial Study, the project may result in significant environmental impacts to biological resources, greenhouse gas (GHG) emissions, noise, and transportation, circulation, and parking. Potentially significant environmental impacts require further analysis in the project's environmental impact report (EIR). Additionally, due to site conditions and potential areas of controversy, the following resource areas shall be further assess in the project's EIR: aesthetics; air quality; geology and soils; hydrology and water quality; land use and planning; and recreation. The analysis presented in this Initial Study is based on preliminary plans and partial design and programming information and does not necessarily state the final impact conclusions for the project. Therefore, the information presented in the EIR would take precedence over any information presented in this Initial Study as the EIR incorporates further design considerations and advanced project plans.

Other Required Public Agency Approvals

California Coastal Commission certification of a PMPA .

II. INITIAL STUDY / CHECKLIST

The following Initial Study checklist provides an evaluation of the project's potential for significant environmental impacts. This Initial Study has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970, as amended, and the 2010 State CEQA Guidelines.

Section 15063(c) of the CEQA Guidelines indicates that the purposes of an Initial Study are to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration;

2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;

3. Assist the preparation of an EIR, if one is required, by:
   a. Focusing the EIR on the effects determined to be significant;
   b. Identifying the effects determined not to be significant;
   c. Explaining the reasons why potentially significant effects would not be significant; and,
   d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

4. Facilitate environmental assessment early in the design of a project.

5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;

6. Eliminate unnecessary EIRs; and

7. Determine whether a previously prepared EIR could be used with the project.

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone).

1. A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:
   a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. The explanation of each issue should identify:
   a. the significance criteria or threshold, if any, used to evaluate each question; and
   b. the mitigation measure identified, if any, to reduce the impact to less than significant.

A. AESTHETICS

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Explanation of Checklist:

a. Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The project is situated in EMPS, which provides views of the San Diego Bay and beyond. The EIR will provide visual simulations of the project from prominent public view points in the vicinity of EMPS, including from the Hilton Pier, Convention Center, the bay, and Coronado Island. EMPS is visible from five Vista Areas designated by the PMP: from the Marriott Marina, Convention Center rooftop Park/Plaza, and three locations on Coronado Island. Though the project would place a permanent structure (performance stage) in EMPS where no permanent development currently exists, views of the project components within EMPS would be limited from most vantage points due to existing buildings and uses. For example, the Convention Center blocks views of EMPS from Harbor Drive and other downtown locations and the large boats and yachts housed in the Marriott Marina block views from locations along the pedestrian North Embarcadero Promenade. Additionally, EMPS is currently utilized as an event space in which temporary structures are erected for events. The Symphony's Bayside Summer Nights events utilize a bulky metal temporary stage and metal fencing around the entire venue area during the summer months. While the project would have a similar footprint as the existing temporary performance venue, it would be an aesthetic improvement in comparison. The project's stage would appear streamlined with the existing San Diego skyline and its architectural design would complement surrounding development. Therefore, the project would provide a beneficial effect to the scenic views of the bay and the San Diego skyline compared to the existing temporary venue. However, because the project would place a permanent structure within a landscaped public park and would be visible from designated scenic vistas (or PMP Vista Areas), further discussion is warranted. Though less than significant impacts to scenic vistas are expected, this threshold will be further analyzed and discussed in the project's EIR.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. State Route (SR)-75, which crosses the San Diego-Coronado Bay Bridge, is a California State-designated scenic highway (Caltrans 2011). The project may be visible from portions of the bridge, which has expansive views of the bay. However, views would be limited to motorists driving along SR-75 on the San Diego-Coronado Bay Bridge, as there is no pedestrian or bicycle path along the bridge. The project would not remove any scenic resources, as it is located within EMPS, a developed park currently used for the temporary Bayside Summer Nights performance venue. No rock outcroppings or historic buildings are located within or adjacent to EMPS. While 146 trees would require removal, the majority of this removal is required for the phased installation of photovoltaic panels (to be installed by 2030) and would not occur at once and the trees are within the central portion of EMPS, limiting their visibility from offsite locations. Additionally, the project includes additional landscaping and tree planting (approximately 55 trees) that would reduce visual impacts of any required tree removal. Therefore, less than significant impacts to scenic resources would occur.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. As previously stated, the project's architectural design would complement surrounding development and contribute to a streamlined San Diego skyline. It would provide an aesthetic improvement compared to the existing temporary performance venue and contribute public art to the community. The proposed light installment as public art would require further discussion and analysis in the project's EIR. Additionally, the park enhancements include the refurbishment and replacement of public amenities, such as the gazebo and restrooms, at EMPS, which would result in a beneficial effect on the visual character of the site. Therefore, no impact to visual character or quality of the project site and surroundings would result.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The project would involve photovoltaic panels and a public art LED light installment that could contribute to glare. However, the photovoltaic panels would be placed so as to not detract from the surroundings and are not anticipated to be a significant source of glare due to its proximity to the bay. The LED light installment would be limited to the performance stage shell and would not project light into the surrounding areas. The light installment would be designed to complement the nighttime San Diego skyline and would not adversely affect views of the bay or of downtown. While further discussion and justification will be provided in the EIR, impacts associated with light and glare are anticipated to be less than significant.

Required Mitigation Measures

Impacts are anticipated to be less than significant and no mitigation measures would be required. However, the project's EIR would further asses potential impacts related to aesthetics and discuss mitigation measures if determined necessary.

B. AGRICULTURE AND FORESTRY RESOURCES

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

No Impact. The project is not located within Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the Farmland Mapping and Monitoring Program (Department of Conservation 2012). Therefore, no impact would occur.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not located within land zoned for agricultural use or under a Williamson Act contract.

c. Conflict with existing zoning for, or cause rezone of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project is not located within forest land, timberland, or land that could be utilized for timber production. Therefore, no impact would occur.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project is not located within forest land and would not convert forest land to non-forest use. Therefore, no impact would occur.

e. Would the project involve other changes in the existing environment that due to their location or nature could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site is located in an area of bay fill that is not suitable for farming or timber production. Therefore, the project would not result in the conversion of Farmland to non-agricultural use or forest land to non-forest use, and no impact would occur.

Required Mitigation Measures

The project would not result in impacts to agriculture and forestry resources; therefore, no mitigation measures are proposed.

C. AIR QUALITY

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Explanation of Checklist:

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. Project construction is anticipated to take up to 10 months, and would involve heavy equipment for grading and construction. Construction activities are relatively minor and are not anticipated to conflict or obstruct with the implementation of any applicable air quality plan. Air emissions associated with project operations are primarily a result of traffic generation. While traffic generation would increase compared to existing conditions, it is not anticipated to result in a significant increase in air emissions. Based on knowledge of past projects of similar size and construction, less than significant impacts would occur. A detailed air quality technical report will be prepared and the results will be presented in the EIR.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact. Project construction and operations are not anticipated to result in the generation of substantial air pollutant emissions that would violate any air quality standard. Based on knowledge of past projects of similar size and construction, less than significant impacts would occur. A detailed air quality technical report will be prepared for the EIR to confirm.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The region is classified as an attainment area for all criterion pollutants except ozone, PM10, and PM2.5. Project construction and operations are not anticipated to result in the generation of substantial emissions of criteria pollutants. Based on knowledge of past projects of similar size and construction, less than significant impacts would occur. A detailed air quality technical report will be prepared and the results will be presented in the EIR..

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Because the project site, EMPS, is a public park, it is considered a sensitive receptor for air quality. Additional sensitive receptors in the vicinity include EMPN and hotels. The project is not anticipated to result in substantial pollutant concentrations. A detailed air quality technical report will be prepared and the results will be presented in the EIR.

e. Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact. Diesel exhaust from construction equipment may be noticeable temporarily at adjacent properties; however, construction activities would be temporary. Land uses primarily associated with operational odor impacts include wastewater treatment facilities, waste transfer stations, landfills, composting operations, refineries, and agricultural operations. The project does not propose these uses and would not include activities known to cause objectionable odors.

Required Mitigation Measures

Impacts are anticipated to be less than significant and no mitigation measures would be required. However, an air quality technical report will be prepared and the results will be presented in the EIR.

D. BIOLOGICAL RESOURCES

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☐	☒	☐
b. Have a substantial adverse effect on any riparian habitat or other community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS?	☐	☐	☒	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Explanation of Checklist:

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (now California Department of Fish and Wildlife) or U.S. Fish and Wildlife Service?

Less Than Significant Impact. The project is located in EMPS, a developed park dominated by grass and ornamental landscaping. No native sensitive species habitat exists on site and no work would be conducted within the bay. The project area is not a known foraging site for sensitive species such as the California least tern *(Sternula antillarum browni*). The nearest known California least turn colonies are located at the San Diego International Airport (SDIA) and Naval Air Station North Island (NASNI), which are both over a mile away from the project. Construction of the project would last no more than 10 months, and though construction noise could temporarily disperse nearby fish populations for short periods of time, it would not cause long term effects on species abundance. Operation of the project is not anticipated to have direct or indirect impacts on sensitive species within the bay as it would occur in a similar manner as the existing uses of EMPS. Therefore, less than significant impact to candidate, sensitive, or special-status species would result.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. As previously discussed, the project is located entirely within a developed park that does not contain native habitat. While the project is located directly adjacent to the bay, storm water best management practices (BMPs) would be deployed during construction, and a permanent storm water treatment and drainage system would be installed on the site to properly divert and filter storm water from the project site before it enters the bay. Therefore, less than significant impacts would occur.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No wetlands or vernal pools existing at the project site, and no work would be conducted within the bay. Therefore, no impact to federally protected wetlands would occur.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

Less Than Significant Impacts with Mitigation. No work would be conducted within the bay. As previously discussed, BMPs would be employed during construction and a permanent storm water treatment and drainage system would be installed to properly divert and filter storm water from the project site before it enters the bay. No impacts to fish species are anticipated to result.

However, EMPS consists of maintained landscaping and pavement. Native bird species covered by the Migratory Bird Species Act may nest within the ornamental trees/landscaping in EMPS. The project would remove 146 trees, which could result in a significant impact on nesting birds at EMPS if it were to occur during the nesting bird season (generally, from March 1 through August 31 or from January 15 through September 15 for raptor species). Mitigation would require the Symphony or its construction contractor to begin any tree and landscaping removal outside of the nesting bird season. This would ensure construction activities begin when no or few nests are present. Construction activities are anticipated to deter birds from nesting at the project site due to the temporary construction noise and disturbance, thus preventing impacts to nests during construction. Additionally, mitigation requiring pre-construction nesting bird surveys, with buffers around all trees containing active nests, would prevent direct impacts to birds resulting from tree removal. Should construction activities halt at the project site for a period of time, thus increasing the risk for birds to begin nesting on site during the period of inactivity, a re-survey of the site would be required to identify any nesting birds and implement buffers, as appropriate.

Impacts are not anticipated to occur during project operation as the project design is streamlined with the surrounding development and would not increase the total structure height when compared to the temporary venue stage. Therefore, the project is not anticipated to impede the movement of migratory birds or affect nesting birds during operations. While photovoltaic panels would be installed for the project, they are not anticipated to cause a significant glare or reflection that would impact bird species due to the design and orientation of the solar array and its proximity to the reflective water of the bay. Additionally, the project would increase light at EMPS through the LED light art installation and wayfinding/security lighting. However, EMPS is already well-lit at night by interspersed lamp posts and light bleed from the surrounding downtown area. Sources of light in the vicinity include the Convention Center, Fifth Avenue Landing, Marriott Marina, several hotels, and Tenth Avenue Marine Terminal.

As discussed above, the project is not anticipated to result in operational impacts to migratory fish or wildlife species or native wildlife, such as nesting birds. Mitigation requiring pre-construction nesting bird surveys and construction to commence outside of the nesting season, as feasible, would avoid or reduce potentially significant impacts to resident nesting birds during construction. Therefore, with mitigation, less than significant impacts to native resident or migratory fish, migratory wildlife species and corridors, or to wildlife nursery sites would occur.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project involves the construction of park enhancements including a permanent performance venue within a developed public park that is currently utilized as an existing temporary performance venue. There is no tree preservation policy or ordinance in effect for the project site. The PMP provides for the protection of biological resources and states that the District will remain sensitive to the needs of and cooperate with communities and other agencies in both bay and tideline development. Up to 146 trees would be removed at EMPS, however, these trees are ornamental and not protected under any preservation ordinance or other policy. In fact, the trees to be removed are on the District's list of undesirable trees and would not be planted today based on water usage, root damage, and other park maintenance concerns. Because the project does not involve construction within the bay and EMPS does not contain native habitat, the project would not result in impacts to biological resources. Therefore, the project would be consistent with District policies pertaining to biological resources.

f. Would the project conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or any other approved local, regional, or state habitat conservation plan?

Less than Significant Impact. No adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP is in place that includes the project site or surrounding vicinity; however, the San Diego Bay Integrated Natural Resources Management Plan (INRMP) is a relevant plan that applies to the project area. The INRMP was prepared to guide planning, management, conservation, restoration, and enhancement of the Bay ecosystem and to "ensure the long-term health, restoration, and protection of the Bay ecosystem in concert with the Bay's economic, naval, navigational, recreational, and fisheries needs" (U.S. Department of the Navy and Port of San Diego 2013). The INRMP includes a vision for San Diego Bay, a detailed description of the current state of the ecosystem, and a pathway to change for proceeding toward the goal and vision. The project is not expected to change the ecosystem composition or result in a net loss of resources for birds, green sea turtles, fish, or marine mammals. Therefore, the project would not impede implementation of the INRMP and is consistent with the plan.

Required Mitigation Measures

Mitigation to protect nesting birds during project construction would be required to reduce impacts to less-than-significant levels. The anticipated mitigation requirements are described in Section d), above. However,, exact mitigation requirements will be identified in the EIR.

E. CULTURAL RESOURCES

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c. Disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in State CEQA §15064.5?

No Impact. No historical resources or potentially eligible historical resources are located at the project site. Therefore, no impact would occur.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA §15064.5?

No Impact. EMPS, in which the project is located, was constructed in 1976 of clean fill material and is completely developed. There are no known archaeological sites within the project vicinity and there is very little to no potential for archaeological resources to be unearthed during construction. No impact would occur.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No Impact. There are no human burial sites at EMPS and very little to no potential for unknown human remains to be identified as the site is constructed entirely of fill and is completed developed as a public park. Therefore, no impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with cultural resources; thus, mitigation measures are not required.

F. GEOLOGY AND SOILS

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project expose people, or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. The Geotechnical and Geologic Hazard Evaluation prepared for the project (see the EIR appendices) shows the project site relative to known active faults. Mapped active portions of the Rose Canyon Fault—an active fault—are located within several hundred feet of the site. Therefore, ground surface rupture, lurching, and/or cracking due to active faulting and nearby seismic events is possible at the project site. However, the project would be designed and constructed consistent with the California Building Code, which accounts for geotechnical factors affecting a site. Additionally, the permanent performance venue associated with the project would be better able to withstand a fault rupture than the temporary concert venue structures. Therefore, the project would not result in substantial increased risk of loss, injury, or death due to rupture of a known earthquake fault. Impacts would be less than significant.

ii. Strong seismic ground shaking?

Less Than Significant Impact. As with all properties in the seismically active southern California region, the fill and unconsolidated marine sediments that underlay the project site would be subject to shaking hazards during seismic events on active faults in the region. Because the project site is composed of artificial fill, the potential for ground motion is high. Project design has considered the potential for ground shaking and would comply with the California Building Code, which accounts for geotechnical factors affecting a site. Additionally, as previously discussed, the new, permanent performance venue would likely better withstand seismic ground shaking than the existing temporary concert facility. Impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes, and loose granular soils and non-plastic silts saturated by shallow groundwater table are susceptible to liquefaction. The project site is within a City of San Diego-designated liquefaction hazard zone, and based on the potentially loose nature of the materials underlying the site and their saturated condition, the potential for liquefaction is high. Hazards related to liquefaction include seismically-induced settlement and lateral spread, which can take place on gentle slopes such as those as the project site. The project design has considered the potential for lateral spread or horizontal ground displacement and impacts are anticipated to be less than significant and would comply with the California Building Code. Therefore, the risk associated with ground failure and liquefaction would be less than significant.

iv. Landslides?

No Impact. The project site is relatively flat, with gradual slopes and is void of steep slopes or cliffs and is not subject to landslides. Additionally, the Rain Induced Landslide Map of the County of San Diego Multi-Jurisdictional Hazards Mitigation Plan (County of San Diego 2010) does not identify the project site as a landslide area. No impact associated landslides would occur.

b. Would the project result in substantial soil erosion or the loss of topsoil?

No Impact. The project site is completely developed on artificial fill and is covered with grass, landscaping, and pavement. The project would result in a similar land cover composition.

Additionally, soil erosion best management practices would be employed during construction of the project consistent with the project's Storm Water Pollution Prevention Plan. Therefore, there is no potential for substantial soil erosion or the loss of topsoil. No impact would occur.

c. Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. See discussions above under Sections F.a.iii and F.a.iv regarding liquefaction and landslide hazards. As previously discussed, the artificial fill and bay sediments underlying the project site may be subject to ground status settlement, lateral spreading, and liquefaction during a nearby seismic event. This would be considered during the design and construction of the project, which would comply with the California Building Code. Therefore, impacts related to unstable soil or geologic units would be less than significant.

d. Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. EMPS, in which the project is located, was constructed of artificial fill soil underlain by mostly very fine- to medium-grained sand and silt unconsolidated marine sediment. The fill materials are not considered expansive; therefore, no impact would occur.

e. Would the project have soils that are incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project would not entail the use of septic tanks or alternative disposal systems as no septic tanks or alternative wastewater disposal systems are proposed as part of the project. The project site is serviced by the City of San Diego's sanitary sewer system. Therefore, no impact would occur.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. No paleontological resources have been previously identified at the project site. Because the project site is underlain by fill materials, the potential for paleontological resources to be unearthed during construction is low if not nonexistent. Therefore, no impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with geology or soils; thus, mitigation measures are not required.

G. GREENHOUSE GAS EMISSIONS

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐

Explanation of Checklist:

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant. While project construction is not anticipated to generate significant amounts of greenhouse gas (GHG), project operation would last up to 66 years and project traffic generation associated with performances and events may result in significant GHG emissions. A GHG technical report will be prepared for the EIR. Because the levels of GHG emissions from the project through year 2020 and 2035 were uncertain at the time this IS was drafted, impacts are considered to be potentially significant. Because impacts are unknown at this time, appropriate mitigation cannot yet be developed or assumed to reduce potential impacts to less than significant levels. The EIR will further discuss the regulatory setting for GHG emissions, the project's contribution to global GHG emissions, and the significance of potential impacts from the project as well as appropriate mitigation.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant. As discussed above, GHG emissions generated by the project were uncertain at the time this IS was prepared. The GHG technical report will inform the EIR analysis regarding the project's consistency with the District's Climate Action Plan (CAP). Because impacts are unknown at this time, appropriate mitigation cannot yet be developed or assumed to reduce potential impacts to less than significant levels. Impacts are considered potentially significant until the findings of the GHG technical report either confirm this statement or prove otherwise.

Mitigation Measures

Mitigation has not been identified at this time, but is anticipated to be required to reduce impacts to less than significant levels. Mitigation measures will be commensurate with the impacts identified in the GHG technical report and EIR to be prepared following issuance of the Notice of Preparation (NOP).

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The project would include a similar use as the existing temporary Bayside Summer Nights performance series, with the exception that the performance venue would be a permanent structure. Demolition activities are not anticipated to come into contact with any lead- or asbestos-containing materials. Hazardous materials routinely used for construction projects would be used during construction of the project and would be similar to those used for the setup and take down of the existing temporary concert venue. Additionally, substances such as cooking oils, cleaning products, and other chemicals would be used during operation of the project. All hazardous materials or potentially hazardous substances would be transported, used, and disposed of in accordance with all applicable regulations. Therefore, less than significant impact would result.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The project would be required to comply with all applicable fire, building, and health and safety codes, which would eliminate any potential risk of upset. No hazardous materials, other than standard cleaning/maintenance and cooking substances, would be used or stored on the project site, similar to operation of the existing temporary concert venue. Upset and accident conditions involving these materials are not reasonable foreseeable as they would be used, stored, and disposed of in accordance with manufacturer's instructions and applicable regulations. No impact would occur.

c. Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No Impact. No schools are located within 0.25 mile of the project. Therefore, no impact would occur.

d. Is the project located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. As previously discussed, the project is located in EMPS, which was constructed of clean fill. No known hazardous materials sites are expected to be present at the project site. Therefore, no impact would occur.

e. For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The project is located within Review Area 2 of the Airport Influence Area for the San Diego International Airport; therefore, airspace protection and overflight policies and standards apply to the project (San Diego County Regional Airport Authority 2014). Airport Land Use Commission (ALUC) review is required for projects proposed increases in height limits within Review Area 2 that have received a Notice of Presumed Hazard, Determination of Hazard, or Determination of No Hazard subject to condition or would create specific hazards including glare, lighting, and bird attractants, among others. The project would not increase the maximum height (57 feet) at the site compared to the existing temporary concert venue; therefore, ALUC consultation is not required.

The project is within one mile from the Naval Air Station North Island. An Airport Land Use Compatibility Plan for Naval Air Station North Island is currently being prepared; however, the project is not within an identified Accident Potential Zone (APZ) per the Airport Compatible Use Zones Update (Naval Base Coronado 2011). Therefore, the project would not conflict with an applicable airport land use plan and would not result in a safety hazard for people residing or working in the project area.

f. For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project is not located in the vicinity of a private airstrip; therefore, no impact would occur.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The District has an emergency preparedness plan related to emergencies on District Tidelands to be followed in the event of an emergency. The project would not cause or contribute to any change in the existing emergency access to the project site and would not interfere with any adopted emergency response plan or emergency evacuation plan. The project would contain emergency exits and paths sufficient to provide the maximum event attendees emergency evacuation off of EMPS. Therefore, the project would have no impact on an emergency response plan, and no impact would occur.

h. Would the project expose people or structures to the risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The project site is located adjacent to the San Diego Bay within an existing urban environment that is well removed from wildlands. Therefore, no impact related to wildland fire hazards would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with hazards and hazardous materials; thus, mitigation measures are not required.

I. HYDROLOGY AND WATER QUALITY

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☒
e. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j. Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Explanation of Checklist:

a. Would the project violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The project is located adjacent to the San Diego Bay and the runoff from the existing site drains directly into the bay via sheet flow and existing drainage pipes. The project would include the construction of a storm water treatment and drainage system that would collect and filter storm water runoff from the project site prior to discharging into the bay via drainage pipes. The existing drainage pipes at the site may be replaced with one-way pipes that do not allow inlet of water with rising tides. No work would be conducted within the water, high tide line, or rip-rap.

All construction activities would adhere to the project's Stormwater Pollution Prevention Plan (SWPPP), which was prepared in accordance with National Pollutant Discharge Elimination System requirements and includes BMPs to protect water quality during construction. The Applicant would also be responsible for the application of BMPs under the Municipal Separate Storm Sewer System (MS4) permit system, and complying with all other applicable environmental requirements and restrictions. With the implementation of BMPs and compliance with water quality regulatory requirements, impacts would be less than significant.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. No groundwater would be withdrawn as part of project construction and operation and the project would not interfere with groundwater recharge. EMPS currently receives water service from the City of San Diego and the City of San Diego would continue to provide water to the park following project construction. The City of San Diego relies on water from the San Diego County Water Authority, which does not rely on groundwater to supply its member agencies. Therefore, the project would not deplete groundwater supplies. No impact would occur.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-site or off-site?

No Impact. There are no streams or rivers at or near the project site, which is immediately adjacent to the San Diego Bay. The project site is generally covered with lawn and some impervious surfaces such as the promenade, basketball courts, and other paved areas. During construction, the project construction contractor would comply with the project's SWPPP to ensure that erosion and siltation into the San Diego Bay is avoided or kept to a minimum. Upon completion of the project, the site would be completely covered with lawn area, synthetic turf, or pavement, which are not subject to erosion and are not likely sources of siltation. Therefore, the project would not exacerbate or increase erosion and siltation into the bay from EMPS. Additionally, as previously discussed, a storm water drainage and filtration system would be installed on site to maintain the appropriate drainage patterns. Therefore, substantial erosion or siltation would not result and no impact would occur.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or off-site?

No Impact. As described previously, there are no streams or rivers at the project site, and the site is completely developed with an existing park. The project would increase the paved/impervious surfaces at the site, but the site would still be largely covered by synthetic turf or lawn, allowing for infiltration of water throughout the majority of the site. While increasing impervious surface may increase surface water runoff rates and amount, the project's improved site drainage would still be contoured such that runoff drains into the bay or into storm drains, similar to existing conditions. The project would also install backflow devices on the water discharge pipes, serving to reduce potential for flooding during high tide events. Therefore, the project would not result in an increase in the rate or amount of surface runoff that would result in flooding or substantially alter natural drainage patterns. No impact would occur.

e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. Refer to the hydrology and water quality discussions under Questions a. and d. The project would not contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. While rainwater from the site drains directly into the San Diego Bay, the project would include a storm water treatment and drainage system as upgrade the existing drainage pipes for the collection and filtration of water prior to discharge into the bay. Additionally, the mechanical wetland and vegetated swales (bioswales) included in the project would filter runoff prior to its entering the bay. Therefore, no impact would occur.

f. Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. Refer to the discussion under question a. regarding water quality standards and discharge requirements. The project would not degrade water quality of the bay and

impacts would be less than significant. However, due to the project's proximity to the bay, this issue may be further discussed in the project's EIR.

g. Would the project place housing within a 100-year flood plain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The project is within a 100-year floodplain identified by the Federal Emergency Management Agency (FEMA) (FEMA 2012). However, the project does not involve the construction of housing and would not result in the placement of housing within a 100-year flood plain. No impact would result.

h. Would the project place within a 100-year flood plain structures that would impede or redirect flood flows?

No Impact. While the project is within a 100-year floodplain identified by the FEMA, the project would be largely covered with synthetic turf, allowing inundation of the site. Additionally, the storm water drainage system included with the project would only allow one-way discharge into the bay; therefore, water would not flow into the drainage pipes from rising tides. The storm water plan for the project would ensure that the site's drainage patterns are equivalent to or improved from the existing site drainage conditions. None of the project structures would substantially obstruct or redirect flood flows. No impact would result.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam, or as a result of rising sea level?

Less Than Significant. According to the Final Draft San Diego County Multi-Jurisdiction Hazard Mitigation Plan (County of San Diego 2010), the project site is located in an area with a low risk of flooding from dam or levee failure. The closest reservoir to the project site is the Chollas Reservoir, which is approximately 6 miles east of the project site. The project site is also not located within a levee failure flood area. However, as indicated above in Section I.g., the project site is located within a 100-year flood zone. The majority of the project would be covered in synthetic turf, grass, and landscaping with the exception of paved areas such as the perimeter walkway, pavilion areas, restrooms, and other select areas. As such, the site would allow for inundation without substantial damage to structures. Therefore, the project would not expose people or structures to a significant risk or loss, injury, or death resulting from flooding.

The project is located on the waterfront of San Diego Bay, an area subject to the effects of anticipated sea level rise. CEQA does not require a lead agency to analyze the potential impact of projected sea level rise on a project. Specifically, CEQA requires an agency to analyze the impacts of a project on the existing environment and generally does not require that public agencies analyze the impact that existing environmental conditions might have on a project's future users or residents unless the project itself might worsen existing environmental hazards (Ballona Wetland Foundation v. City of Los Angeles (2011) 201 Cal. App. 4th 455; California Building Industry Association v Bay Area Air Quality Management District (S213478, December 17, 2015). Regardless, pursuant to the Coastal Act and the California Coastal Commission's Sea Level Rise Policy Guidance document, a project in the California Coastal Zone, like the project, must address sea-level rise and resiliency of the project and coastal resources.

The most widely used guidance for considering sea level rise along the California coastline is the previously mentioned California Coastal Commission's Sea Level Rise Policy Guidance adopted August 12, 2015 (California Coastal Commission 2015). The Sea Level Rise Policy Guidance provides sea level projections for the bench mark years of 2030, 2050, and 2100. The project life is expected to be up to 66 years; therefore, the project life span would be 66 years, beginning in 2018 and ending in 2084. According to Appendix A of the Sea Level Rise Policy Guidance: Sea Level Rise Science and Projections for Future Change, the sea level rise projections for the California coast south of Cape Mendocino in the year 2100 (the benchmark year nearest the end of the project lifespan) is between 17 and 66 inches (California Coastal Commission 2015). Because the worst-case scenario does not fall on either of these benchmarks, the guidance document recommends using either linear interpolation or "best fit" equation methods of Appendix B of the Sea Level Rise Policy Guidance: Developing Local Hazard Conditions Based on Regional or Local Sea Level Rise Using Best Available Science. Using the linear interpolation method, in year 2084, the sea level south of Cape Mendocino would rise between 13.16 and 52.56 inches. Because the project site is located approximately 7.73 feet above mean sea level, the site would be affected by the projected sea level rise for 2084. Impacts will be further discussed in the EIR.

j. Would the project contribute to inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. The project site lies within the tsunami inundation zone mapped by the California Geologic Survey Tsunami Inundation Map for the Point Loma Quadrangle (California Emergency Management Agency 2009). Therefore, the potential for tsunami inundation at the project site is high when compared to areas outside the mapped inundation zone. However, the project would be built at the same elevation as the promenade and Convention Center, which are outside of the tsunami inundation zone, and would be somewhat protected by Coronado Island due to its placement within the San Diego Bay. Should a tsunami occur, the project site allows for inundation as it would be largely covered with synthetic turf. Fatalities and injuries from tsunami inundation can be reduced through implementation of a tsunami early warning system, and public education and signage of actions to take in the event of a tsunami arriving at the project site.

A strong earthquake lasting 20 seconds or more near the coast may generate a tsunami. A noticeable rapid rise or fall in coastal waters is also a sign that a tsunami is approaching. The West Coast & Alaska Tsunami Warning Center is responsible for issuing warnings of potential tsunamis along the west coast of the United States. The County of San Diego Office of Emergency Services also issues tsunami warnings and provides guidelines for what to do during and after a tsunami warning, and the Port Harbor Police have a tsunami early response/warning protocol. The West Coast/Alaska Tsunami Warning Center (WC/ATWC) and the Pacific Tsunami Warning Center (PTWC) may issue the following bulletins:

- **WARNING:** A tsunami was or may have been generated, which could cause damage; therefore, people in the warned area are strongly advised to evacuate.

- **WATCH:** A tsunami was or may have been generated, but is at least 2 hours travel time to the area in watch status. Local officials should prepare for possible evacuation if their area is upgraded to a warning.

- **ADVISORY:** An earthquake has occurred in the Pacific basin, which might generate a tsunami. WC/ATWC and PTWC will issue hourly bulletins advising of the situation.

- **INFORMATION:** A message with information about an earthquake that is not expected to generate a tsunami. Usually only one bulletin is issued.

Based on the above discussion, sufficient tsunami warning and response systems are in place in the San Diego Bay. The project is also in close proximity to the waterfront and tsunami evacuation routes to the east. Additionally, there would be no change in exposure to this hazard from the existing conditions, because the project would be replacing an existing temporary concert facility with a permanent performance venue.

Regarding seiche waves and mudflows, the project would be constructed at the same, or slightly raised, elevation as the existing structure, which is at the same level as the North Embarcadero. The project site is flat and is not located adjacent to any unstable slopes that may be subject to mudflows during large storm events. In addition, the project site would not be subject to inundation by seiche as this phenomenon is typically associated with land-locked bodies of water, none of which occur near the project site. The closest inland water body is Sweetwater Reservoir, which is located approximately 10 miles east of the project site. Therefore, the project would not be susceptible to inundation by seiche or mudflow.

Required Mitigation Measures

Mitigation measures related to hydrology and water quality, if any are required, will be discussed in the EIR.

J. LAND USE AND PLANNING

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project physically divide an established community?

No Impact. The project involves the redevelopment of a portion of an existing park and in-kind replacement of park facilities. The project site is situated at the bayfront and does not provide through-access or connection to or between communities. Though construction activities would require the temporary closure of EMPS, public access to EMPS would be maintained, and in some cases improved, following construction. Additionally, the Embarcadero Marina Park Pier and select parking spaces to serve the pier would remain open during construction with the exception of only short periods of closure for safety purposes or as needed by construction operations. Public access would be improved through the installation of public access wayfinding signage and replacement of existing park facilities with new facilities, including basketball courts, walkway, outdoor pavilion, and restrooms. Because the project would not physically divide a community, no impact would occur.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The project is within the PMP's Planning District 3 (Centre City Embarcadero), Marina Zone Subarea, and is designated as "Park/Plaza" by the PMP. The Park/Plaza is a use category that encourages and accommodates public access to and along the interface zone of land and water. Recreational facilities in Park/Plaza uses may include public fishing piers, boat launching ramps, public art, pedestrian walkways, food and beverage vending, and other park-activating uses. The PMP places emphasis on the development of public facilities for marine-oriented recreation activities (e.g., fishing, boating, beach use, nature observation) and aims to provide a variety of active and passive recreational facilities suitable for all age groups. Within

Planning District 3, the PMP calls for considerable effort in improving the amenities and people spaces of the public thoroughfare. Specifically, the Marina Zone Subarea of Planning District 3 is planned to be intensively developed as a major public and commercial recreation complex.

The project would not change the PMP land use designation of EMPS, and as a stage for performance arts and public forum and events, it is consistent with the uses allowed by the PMP for Park/Plaza, which includes cultural uses. Additionally, the project includes a PMPA to include the project's performance venue in the Planning District 3 Project List (Table 11 of the PMP). The PMPA would also describe the existing use of EMPS as a temporary performance venue for admission-based performances and other events and outline limitations of the permanent performance venue's use. The project also complements the District's efforts to reactivate public spaces along the bay, as it would attract new visitors to the park through both the performance venue and upgraded park amenities that would remain open to the public. The project's EIR will provide a consistency analysis for the project and applicable policies from Chapters 3 and 8 of the California Coastal Act and goals from the PMP.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is disturbed and covered with existing park facilities and ornamental landscaping. The project involves the redevelopment of an existing temporary concert venue and park. No habitat conservation plan or natural community conservation plan is located on or adjacent to the project site. As previously discussed, the San Diego Bay INRMP sets forth a long-term strategy to provide direction for the good stewardship of natural resources in the bay. The goal of the INRMP is to "ensure the long-term health, restoration, and protection of San Diego Bay's ecosystem in concert with the bay's economic, naval, navigational, recreational, and fisheries needs". The project would involve the redevelopment and reactivation of a bayfront park that would provide both economic and recreational benefits. Therefore, the project would not conflict with the goals or intent of the INRMP or affect sensitive habitats. No impact related to habitat conservation plans would result.

Required Mitigation Measures

The project would result in less than significant impacts to land use and planning; therefore, no mitigation measures are proposed.

K. MINERAL RESOURCES

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or in the inefficient use of energy resources?	☐	☐	☒	☐
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or in the inefficient use of energy resources?

Less Than Significant Impact. The project site is fully developed and is not known to contain mineral resources that would be of future value to the region or state. The project site is mapped as Mineral Resource Zone-1 (MRZ-1) by the Conservation Element of the City of San Diego General Plan. MRZ-1 refers to areas in which adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for the presence of mineral deposits (City of San Diego 2008). In addition, the project is located within a highly active park area and even if mineral deposits were identified on site, the potential for viable extraction of minerals is limited. Therefore, no mineral resources would be lost as a result of the project and no impact would occur.

The project would result in a net increase in electricity consumption associated with the performance venue due to increased seating and number of events per year compared to existing conditions. However, the new performance venue would include energy efficiency and sustainability features. Energy consumption per event associated with the project would be decreased compared to existing events. Therefore, the project would not result in the inefficient use of energy, and the impact would be less than significant.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As discussed in Section K.a. above, the project is located in an MRZ-1 zone, which refers to areas that likely do not contain mineral deposits and no mineral resources would be lost as a result of the project. No impact would occur.

Required Mitigation Measures

The project would not result in impacts to mineral resources; therefore, no mitigation measures are proposed.

L. NOISE

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Expose persons to or generate excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing without the project?	☐	☒	☐	☐
e. For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Less Than Significant Impact with Mitigation. The project would increase the number of events held each year compared to existing conditions. Noise levels may exceed the City of San Diego and City of Coronado noise ordinances for short periods of times during performances held at EMPS. However, the project's performance stage was designed to direct sound toward the audience and would result in less noise bleed than the current portable, temporary concert stage utilized at EMPS. A noise technical report will be prepared for the project to model the noise levels that would

result from the performance stage as a worse-case-scenario. Because at this time it is uncertain whether performance noise levels will exceed limits set by the cities of San Diego and Coronado, impacts are considered significant. Should the noise technical report conclude that noise levels would exceed thresholds, it is anticipated that appropriate mitigation, such as time limits, maximum noise levels, noise monitoring of events, and/or other minimization methods, would reduce impacts to less than significant levels.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction activities would result in some localized vibration, but the vibration would not affect areas outside of the immediate construction area. Additionally, project operations would not expose people to vibration or groundborne noise levels. No blasting or pile driving is proposed, thus limiting the potential for adverse groundborne vibrations. Impacts would be less than significant.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The use of EMPS would remain largely the same as existing conditions following construction; as a public park, its main use will remain recreation. While ambient noise levels would increase during performances and events, these would be temporary conditions and would not be sustained, permanent increases in ambient noise. Impacts are anticipated to be less than significant.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact with Mitigation. As previously discussed, ambient noise would temporarily increase during performances and events. However, the design of the performance stage would direct sound towards the audience and reduce noise bleed into surrounding areas. A noise technical report will be prepared to further assess potential impacts associated with temporary ambient noise levels, and may find the temporary increases to be substantial. Mitigation would likely be able to reduce impacts to less than significant levels by requiring performance and event time limits, noise level limits, noise monitoring, and/or other minimization methods. Impacts would be less than significant with mitigation.

e. For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The project site is located Review Area 2 of the airport impact area (AIA) for San Diego International Airport. This area is subject to airspace protection policies of the ALUCP, however is not subject to ALUCP noise compatibility policies or safety zone policies. Impacts would be less than significant.

f. For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project is not within the vicinity of a private airstrip. No impact would result.

Required Mitigation Measures

Mitigation has not been identified at this time, but is anticipated to be required to reduce impacts to less than significant levels. Mitigation measures will be commensurate with the impacts identified in the noise technical report and EIR to be prepared following issuance of the Notice of Preparation. M. POPULATION AND HOUSING

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project would not involve the development of new residences or businesses and would not directly or indirectly induce population growth. The majority of construction personnel is anticipated to commute from within San Diego County and would likely not require temporary housing. Therefore, there would be a negligible, temporary increase in local and regional population during construction of the project. The Symphony does not anticipate increasing its existing number of employees from the approximately 260 necessary to operate the Bayside Summer Nights in order to operate the project. Though some patrons of performances associated with operation of the project would travel from out of town, the majority of patrons are anticipated to be from within the San Diego region, and outside visitors would be temporary. In addition, the project does not include the extension of roads or other infrastructure that would indirectly induce substantial population growth. No impact would occur.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace housing as it is located on an existing park site on the San Diego bayfront where no housing exists. No impact would occur.

c. Would the project displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace any number of people or require the construction of replacement housing as it is located on an existing park site on the San Diego bayfront where no housing exists. No impact would occur.

Required Mitigation Measures

The project would not result in impacts to population and housing; therefore, no mitigation measures are proposed.

N. PUBLIC SERVICES

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Less Than Significant Impact. Fire protection services for the project site are provided by the San Diego Fire-Rescue Department Station 4 (404 8th Avenue). The station is located approximately 0.5 mile from the project and provides fire and medical/rescue services. The project would increase the performance seating capacity (e.g., net increase of up to 5,000) from the existing Bayside Summer Nights and would increase the number of annual events at the site. However, it is not anticipated to require additional fire protections services than what is required for the existing site. The project design would be an improvement in safety and emergency access than the existing Bayside Summer Nights' temporary facility. In addition, the project is not located within an area prone to wildfires, and would not use or generate large quantities of readily-combustible materials. The existing fire lane configuration at the project site would be maintained and emergency response times would not be affected. As such, no new or altered fire protection facilities would be required, and less than significant impact would occur.

Police protection?

Less Than Significant Impact. Police protection services for the project site are provided by both the Central Division of the San Diego Police Department and the San Diego Harbor Police. The San Diego Police Department Central Division is located at 2501 Imperial Avenue and is approximately 1.4 miles from the project site. The San Diego Harbor Police is located at 3380 North Harbor Drive and is approximately 2.25 miles from the project site. The 10,000-seat project would result in an increased performance seating capacity (e.g., net increase of up to 5,000) from the existing Bayside Summer Nights and would increase the number of annual events at the site. This capacity increase has the potential to increase the need for police protection services due to the potential for crime to increase as a result of increased activity on the project site. However, the Symphony employs security for their current Bayside Summer Nights events, and would continue to employ security during operation of the project. On-site security would lessen the threat of crime during performances and may be able to alleviate altercations or criminal activity before police protection services become necessary. Police and emergency access at the project site would be maintained during performances and others events. The San Diego Police Department Central Division would access the site through Park Boulevard/Convention Way/Marina Park Way and the San Diego Harbor Police would be able to access the site from the bay. As such, emergency response times are not anticipated to be affected by the project. Thus, no new or altered police protection facilities would be required, and less than significant impact would occur.

Schools?

No Impact. Construction personnel associated with the project are anticipated to be drawn from the San Diego region, and though they may have school-aged children, their children would likely already be enrolled in schools near their existing homes. Operation of the project would not result in an increase in employment by the Symphony and therefore would not generate school enrollment in the project area. In addition, the project would not construct residential units or induce growth, both of which could generate school enrollment. The project would also not physically impact any schools (no schools are located within 0.25 mile of the project). Because no new or altered school facilities would be required to serve the project, no impact would occur.

Parks?

Less Than Significant Impact. The project involves the enhancement of EMPS, including refurbishment and replacement of public amenities throughout EMPS and construction of a performance venue at a portion of EMPS, named the Bayside Performance Park. During construction, EMPS would be temporarily closed for up to 10 months. However, access to the Embarcadero Marina Park Pier would remain open during construction with the exception of short periods of time when deemed necessary for construction activities or safety. Several parking stalls and the bait shop would also remain open during construction. While EMPS (with the exception of the Embarcadero Marina Park Pier) would be closed for up to 10 months, additional parks and recreational amenities in the vicinity of the project would be available to park users during this closure. For example, the Embarcadero Marina Park North, Ruocco Park, and Fifth Avenue Landing Park offer similar bayside park options within approximately 0.5 mile of EMPS.

Following construction, the project would provide an improvement to EMPS by replacing the basketball courts, pavilion/picnic area, public restrooms, and public walkway. During operation of the project, the Bayside Performance Park portion of EMPS would be closed during performance hours, as required for operation of the project and is current practice during the Bayside Summer

Nights. However, the remaining areas and public walkway around the perimeter of EMPS would remain open to the public at all times. Certain programs or events would also allow the back-of-stage concrete steps and viewing deck to remain open during select event hours. Outside of performance hours, the majority of the performance venue area would be open for public use, including the lawn space and back-of-stage viewing deck. Because nearby parks would be available while EMPS is temporarily closed during construction, and the project would upgrade existing park facilities and maintain public access during performances, no new or altered park facility would be required to serve the project area. Less than significant impacts would occur.

Other public facilities?

No Impact. The project would not add employees to the Symphony's current temporary event employment. The project would not involve the construction of housing units or other employment-generating development that would create the demand for other public facilities, such as libraries. No new or altered facilities would be required to serve the project site. Therefore, the project would have no impact on other public facilities.

Required Mitigation Measures

The project would result in less than significant impacts to public services; therefore, no mitigation measures are proposed.

O. RECREATION

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Explanation of Checklist:

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The construction personnel required for the project are anticipated to already reside in the San Diego region and would not result in a substantial increase in use of existing neighborhood and regional parks and recreational facilities. Construction would require EMPS to be temporarily closed for up to 10 months to allow for the replacement of existing park facilities including basketball courts, pavilion/picnic area, public walkway, and restrooms. Though nearby parks may see an increase in use while EMPS is closed for construction, the closure would be short-lived and would not be likely to physically deteriorate nearby recreational facilities. Following construction, EMPS would be improved from existing conditions. The Embarcadero Marina Fishing Pier would remain open to the public for the duration of construction, except for brief closures to ensure public safety.

No new permanent employees would be obtained by the Symphony, as the current 260 employees who operate the Bayside Summer Nights would be sufficient to operate the project. The project would not construct any residences that would increase the use of parks or other recreational facilities. Nonetheless, the project would increase performance seating by up to 5,000 seats from the current Bayside Summer Nights temporary venue and would also operate events outside of the summer season, compared to the current June to September season. However, the project is intended to reactivate bayside public spaces consistent with the PMP and the increase in performance guests is not anticipated to cause an increased deterioration of EMPS or other recreational facilities in the vicinity. Therefore, a less than significant impact would occur to parks and recreational facilities as a result of the project.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less Than Significant Impact. The project includes the in-kind replacement of four basketball courts, an existing outdoor pavilion, public restrooms, and public walkway around the perimeter of the park. In addition, the pre-event lawn space would be open to the public for use during non-event hours. Public access wayfinding signage would also be installed at appropriate locations at the project site to ensure the public is aware of all public-use facilities, such as the portion of the walkway that meanders around the performance venue. The project is improving an existing park and maintaining public access; consequently, the construction or expansion of other recreational facilities would not be required. Therefore, less than significant impacts would result.

Required Mitigation Measures

The project would result in less than significant impacts to recreation; therefore, no mitigation measures are proposed.

P. TRANSPORTATION, CIRCULATION, AND PARKING

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e. Result in inadequate emergency access?	☐	☐	☒	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
g. Result in inadequate parking capacity?	☐	☒	☐	☐

Explanation of Checklist:

a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact with Mitigation. A Traffic Impact Analysis (TIA) was not yet prepared for the project at the time of this Initial Study. However, the project is anticipated to result in potentially significant impacts to roadway segments and intersections during a worst-case-scenario 10,000-seat event. Mitigation is available to reduce these types of impacts. The TIA will identify specific impacts and commensurate mitigation to ensure impacts are reduced to less than significant levels.

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact A TIA was not yet prepared for the project at the time of this Initial Study. However, the project is not anticipated to conflict with local congestion management plan. The TIA will further assess and the conclusions will be presented in the EIR.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact. There are not anticipated to be any conflicts with air traffic patterns as the proposed performance stage would be the same height as the existing temporary concert stage utilized at EMPS.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project does not include any physical changes to roadways nor would it change the land use of the site; therefore, it would not introduce or increase hazards.

e. Would the project result in inadequate emergency access?

A Traffic Impact Analysis was not yet prepared for the project at the time of this Initial Study and the analysis of potential impacts associated with transportation, circulation, and parking are deferred to the project's EIR.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The project would not interfere with any public transit facility or service or bicycle or pedestrian facility. The project would widen the pedestrian promenade within a portion of EMPS, thus increasing pedestrian access at this location. Less than significant impacts would result.

g. Result in inadequate parking capacity?

Less Than Significant Impact with Mitigation. The project would increase maximum event capacity of EMPS to 10,000, which may result in inadequate parking and a significant impact. The TIA and EIR will further assess parking demand and supply. It is anticipated that mitigation, such as a parking management plan, off-site parking requirements, and public transit incentives, would reduce impacts to less-than-significant levels.

Required Mitigation Measures

Mitigation has not been identified at this time, but is anticipated to be required to reduce impacts to less than significant levels. Mitigation measures will be commensurate with the impacts identified in the TIA and EIR to be prepared following issuance of the Notice of Preparation.

Q. UTILITIES AND SERVICE SYSTEMS

Would the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulation related to solid waste?	☐	☐	☐	☒

Explanation of Checklist:

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. Wastewater collection, treatment, and disposal at the project site will be provided by the City of San Diego Wastewater, a branch of Public Utilities, as is currently provided for the existing site. A new 64-stall restroom would be installed on-site, compared to the existing use of portable restrooms for the temporary performance venue, and the existing park restrooms would be replaced with updated facilities. All new restrooms would connect to the existing water and sewer lines serving the site. Due to the increase in performance seats associated with the project, a net increase in wastewater generation is anticipated at the site compared to the existing setting.

The City of San Diego wastewater system collects approximately 180 million gallons per day (mgd) in the City of San Diego; therefore, the increase in performance seating capacity at the project would not be a significant increase in the overall service population. In addition, in 2015, Governor Brown's Executive Order (EO) B-29-15 ordered a statewide 25 percent reduction potable urban water usage through February 2016, which has been met. The conservation efforts implemented to meet the 25 percent water reduction have in turn resulted in reduced sewage flows to the City's water treatment facilities and also resulted in excess capacity. While there would be a net increase in the generation of wastewater, as previously discussed, the increase is not significant considering the size of the overall wastewater service system (180 mgd) and conservation efforts that have resulted excess wastewater capacity. Therefore, the increase would not result in an exceedance of the wastewater treatment capacity of the City of San Diego wastewater system. In addition, the project would not generate additional types of wastewater compared with existing conditions, and the City of San Diego wastewater system would be able to effectively treat wastewater generated by the project. Operation of the project would have no effect on the wastewater treatment requirements set forth by the state Regional Water Quality Control Board - San Diego Region for the City of San Diego. Therefore, the project would have a less than significant impact on wastewater treatment requirements.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. The City of San Diego supplies water to the project site. The project would result in an increase in demand for water and wastewater treatment due to the anticipated increase in the number of performance seats and events associated with the project. The City of San Diego's water system delivers approximately 200 mgd of water, and the wastewater system collects, treats, and disposes of approximately 180 mgd. Considering the overall service system, the increased capacity is not significant. In addition, the mandatory drought restrictions have reduced both water demand and sewage flows to the City's water treatment facilities and also resulted in excess capacity. While statewide water supplies are still very much of a concern, the San Diego County Water Authority has been stockpiling surplus water saved through conservation efforts in the region's reservoirs. In addition, the project has incorporated sustainability measures in its design that aim to conserve water, including low-flow restroom appliances and drought tolerant landscaping. Therefore, the existing water supply and wastewater treatment facilities are sufficient to serve the increase in performance seats, and no construction of new water or wastewater

treatment plants or expansion of existing facilities would be necessary. Impacts would be less than significant.

c. Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. As discussed in Section I. Hydrology and Water Quality, the existing site drains to the bay. The project includes the installation of an updated storm water treatment and drainage system throughout the site that will connect with the existing system to collect and filter water prior discharging into the bay. Therefore, the expansion of existing facilities would not be required following construction of the project and less than significant impacts would occur.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The water supply to the project site is provided by the City of San Diego, which has an adopted Urban Water Management Plan (San Diego County Water Authority 2016) that addresses future water demands based on a variety of existing and proposed land uses and land use plans. The project is in conformance with the land uses taken into account in determining future water demand. As previously stated, EO B-29-15 ordered a statewide 25 percent reduction potable urban water usage through February 2016. In May 2016, Governor Brown issued EO B-37-16, which builds off the mandatory water reductions in the previous EO by calling for continued water conservation measures. EO B-37-16 requires the state to achieve 20 percent reduction in urban water uses by 2020, and requires water agencies to customize water use targets based on individual agency conditions and uses strengthened standards and issue draft framework by January 10, 2017. As such, the San Diego County Water Authority and the District are expected to continue water conservation efforts.

As previously discussed, the water conservation and restrictions thus far have been successful, and the San Diego County Water Authority has been stockpiling surplus water saved through conservation efforts in the region's reservoirs. As such, the project would have sufficient water supplies to service the increase in performance seats and events associated with the project, and no new or expanded entitlements would be needed. The installation of low-flow appliances and drought-tolerant landscaping are a portion of the project's sustainability measures designed to conserve water. Implementation of these water conservation measures would assist the region in achieving the statewide water reduction goals. Therefore, the project would have less than significant impacts related to water supply and water systems.

e. Has the wastewater treatment provider, which serves or may serve the project, determined that it has adequate capacity to serve the projected demand of the project in addition to the provider's existing commitments?

Less Than Significant Impact. The wastewater treatment provider to the project site is the City of San Diego. Implementation of the project would result in a minor increase in wastewater generation due to the increase in number of performance seats and events associated with the project. However, no new wastewater treatment pipelines, other than the existing utility connections described above, would be necessary and no increase in treatment capacity to accommodate this increase in wastewater generation would be required. Therefore, impacts would be less than significant.

f. Is the project served by a landfill with sufficient permitted capacity to accommodate the solid waste disposal needs of the project?

Less Than Significant Impact. The City of San Diego's Construction and Demolition Debris Deposit Ordinance, which would apply to the proposed because the District does not have its own ordinance, requires that the majority of new projects that require building, combination, and demolition permits divert their debris by 65 percent through recycling (at a certified recycling facility), reusing, or donating usable materials. Though the project would not require one of these permits from the City of San Diego, the Applicant would still recycle demolition and construction debris to the extent feasible. Demolition of the existing structure would generate construction waste that would be recycled to the greatest extent practicable. Materials would be hauled to the Tenth Avenue Marine Terminal for sorting and processing for materials that cannot be recycled to be disposed of in accordance with all existing regulations.

Upon completion, the project would utilize the Miramar Landfill. The City of San Diego disposes of over 910,000 tons of trash per year. At this rate of disposal, the only City-run landfill, the Miramar Landfill, will likely be filled to capacity and close by 2025. However, to extend the life of the Miramar Landfill and other private landfills in the County, the City of San Diego Zero Waste Plan (ZWP) calls for handling discarded materials as commodities for reuse rather than for disposal, and conserving those commodities through waste prevention, recycling, composting, and other technologies. On December 16, 2013, the City Council adopted a Zero Waste Objective that established the targets for this ZWP of 75 percent diversion of waste from landfills by 2020 and Zero Waste by 2040. Reduced trash generation and increased recycling are anticipated to reduce the waste stream from the project site over existing conditions. The project would contribute to these efforts by offering both recyclable and landfill waste bins for patrons. Therefore, the project would have a less–than-significant impact on the solid waste disposal system.

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Solid waste collection, disposal, and management services would continue to be provided by Allied Waste Systems [confirm] as it is for the existing facility. This would include the collection, hauling, and management of recycling or disposal of refuse material from the project site. Therefore, no impact would occur as it pertains to compliance with federal, state, and local statues and regulations related to solid waste.

Required Mitigation Measures

The project would not result in significant impacts associated with utilities and service systems; thus, mitigation measures are not required.

R. MANDATORY FINDINGS OF SIGNIFICANCE

Does the project:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable futures projects)?	☐	☐	☐	☐
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

Explanation of Checklist:

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

This analysis is deferred to the project's EIR.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

This analysis is deferred to the project's EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

This analysis is deferred to the project's EIR.

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T. DETERMINATION AND PREPARERS

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE FEE DETERMINATION
(Fish and Game Code Section 711.4, Statutes of 2006 – SB 1535)

[X] It is hereby found that this project involves no potential for any adverse effect, either individually or cumulatively, on wildlife resources and that a "Certificate of Fee Exemption" shall be prepared for this project.

[ ] It is hereby found that this project could potentially impact wildlife, individually or cumulatively, and therefore, fees in accordance with Section 711.4(d) of the Fish and Game Code shall be paid to the County Clerk.

Report Preparers

San Diego Unified Port District
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CEQA Consultants

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(252)

San Diego Unified Port District
Document No. 65084
Filed JUN 0 2 2016
Office of the District Clerk

TIDELAND USE AND OCCUPANCY PERMIT

THIS PERMIT, by the SAN DIEGO UNIFIED PORT DISTRICT, a public corporation, hereinafter called "District," to SAN DIEGO SYMPHONY ORCHESTRA ASSOCIATION, a California non-profit public benefit corporation, hereinafter called "Tenant," is set forth as follows:

District for the considerations hereinafter set forth, hereby grants to Tenant upon the terms and conditions and for the purposes and uses hereinafter set forth, the right to use and occupy a portion of those lands conveyed to the San Diego Unified Port District by that certain Act of the Legislature of the State of California, entitled "San Diego Unified Port District Act," Stats. 1962, 1st Ex. Sess., c. 67, as amended, which lands are more particularly described as follows and are herein referred to as "Premises":

Approximately 158,449 square feet (3.64 acres) of tideland area located in Embarcadero Marina Park South in San Diego, California as more particularly delineated on District Drawing No. 019-008 dated May 2, 2016, attached hereto as Exhibit "A," and by this reference made a part hereof, hereinafter "Premises."

This Permit is granted upon the following terms and conditions:

1. **TERM:** The term of this Permit shall be for four (4) months, commencing on the 1st day of June, 2016, and ending on the 30th day of September, 2016, unless sooner terminated as herein provided.

2. **RENTAL:** As and for the rental, Tenant agrees to pay to District rent in accordance with the following:

(a) Flat rent of One Dollar ($1.00) per ticket sold for performances conducted by Tenant, calculated on a monthly basis and in lieu of percentage rent on said ticket sales;

ORIGINAL

(b) Flat rent of Seventeen Dollars and Fifty Cents ($17.50) per parking space, per day reserved for all rehearsals and for all concerts and events conducted by subtenants pursuant to Paragraph 3 below, except that such rent shall not apply to parking spaces (as described below in paragraph 3 "Use") reserved for rehearsals and concerts conducted solely by Tenant.

(c) In addition to the flat rent in Paragraphs 2(a) and 2(b) above, there shall be percentage rents calculated on a monthly basis and based on the following percentages of the gross income of all operations and businesses conducted on or from the Premises:

(i) Five Percent (5%) of the gross income from the sale of tickets to concerts and events held by subtenants;

(ii) Five Percent (5%) of the gross income from the sale of food and food products;

(iii) Five Percent (5%) of the gross income from the sale of alcoholic and non-alcoholic beverages;

(iv) Five Percent (5%) of the gross income from the sale of merchandise;

(v) Five Percent (5%) of the gross income from the rental of temporary improvements on the Premises to subtenants;

(vi) Ten Percent (10%) of the gross income from the sale of parking services or the rental of parking spaces; and

(vii) Twenty Percent (20%) of the gross income from any and all services or uses not permitted under the terms of this Permit and not otherwise addressed within the foregoing provisions.

(d) On or before the 28th day of each month, Tenant shall render to the District, in a form prescribed by the District, a detailed report for the previous calendar month of the number of tickets sold for Tenant concerts; the gross income from ticket sales from subtenants; the gross income from food, beverages, and merchandise sold by Tenant and any subtenants conducting operations and businesses on or from the Premises; the gross income from the rental of temporary improvements on the Premises to subtenants; and all gross income from operations and businesses conducted on or from the Premises not otherwise addressed. Each report shall include an itemized accounting of rent due from the

previous calendar month for each of the categories of flat percentage rent within this Paragraph 2. Each report shall also be signed by Tenant or its responsible agent under penalty of perjury. Concurrently with the rendering of each monthly statement, Tenant shall pay the total rent due for the previous calendar month as calculated on each monthly statement.

(e) All payments and statements required in Paragraph 2(d) above shall be delivered to the Treasurer of the District. Checks shall be made payable to the Treasurer and mailed to the Office of the Treasurer, San Diego Unified Port District, Post Office Box 120488, San Diego, California 92112-0488, or delivered to the Office of the Treasurer, 3165 Pacific Highway, San Diego, California. The designated place of payment and filing may be changed at any time by District upon ten (10) days' written notice to Tenant. Tenant assumes all risk of loss and responsibilities for late charges, as herein described, if payments are made by mail.

(f) Tenant hereby acknowledges that late payment by Tenant to District of rent and other sums due hereunder will cause District to incur costs not contemplated by this Permit. Accordingly, in the event Tenant is delinquent in remitting the rent due in accordance with the rent provisions of this Permit, Tenant shall pay, in addition to the unpaid rent, five percent (5%) of the delinquent rent. If rent is still unpaid at the end of fifteen (15) days, Tenant shall pay an additional five percent (5%) [being a total of ten percent (10%)]. The parties hereby agree that said late charges are appropriate to compensate District for loss resulting from rent delinquency including, without limitation, lost interest, opportunities, legal costs, and the cost of servicing the delinquent account. Acceptance of such late charges and any portion of the late payment by District shall in no event constitute a waiver of Tenant's default with respect to such overdue amount, nor prevent District from exercising any of its other rights and remedies. The Executive Director of District shall have the right to waive for good cause any late charges upon written application of Tenant for any such delinquency period.

(g) All payments by Tenant to District shall be by a good and sufficient check. No payment made by Tenant or receipt or acceptance by District of a lesser amount than the correct amount of rent due under this Permit shall be deemed to be other than a payment on account of the earliest rent due hereunder, nor shall any endorsement or statement on any check or any letter accompanying any check or payment be deemed an accord and satisfaction, and District may accept such check or payment without prejudice to District's right to recover the balance or pursue any other available remedy.

(h) Tenant shall, at all times during the term of this Permit, keep or cause to be kept, accurate and complete records and double entry books of

account of all financial transactions in the operation of all business activities, of whatever nature, conducted in pursuance of the rights granted herein. The records must be supported by source documents of original entry such as sales invoices, cash register tapes, bank depository documentation, purchase invoices, or other pertinent supporting documents. Financial statements (a balance sheet and income/expense statement), based upon the double entry books of account, shall be prepared not less than annually.

All retail sales producing gross income upon which percentage rent are due shall be recorded by means of cash registers, except as expressly provided for herein. All cash registers shall be equipped with sales totalizer counters for all sales categories, as herein provided, which counters are locked in, constantly accumulating, and which cannot be reset. Said registers shall further contain tapes upon which sales details are imprinted. Beginning and ending sales totalizer counter readings shall be made a matter of daily record. Retail sales may be recorded by a system other than cash registers, provided such a system is first approved in writing by the Executive Director of District.

All Tenant's books of account, records, financial statements, and documentation related to this Permit or to business operations conducted within or from the Premises, shall be kept either at the Premises or at such other locations as are acceptable to District. District shall have the right at any and all reasonable times to examine and audit said books, records, financial statements, and documentation, without restriction, for the purpose of determining the accuracy thereof, the accuracy of the monthly statements of gross income submitted, and the accuracy of the rent paid to the District. In the event that the Tenant's business operations conducted within or from the Premises are part of a larger business operation of the Tenant, and any part of the books, records, financial statements, and documentation required herein is prepared only for the larger operation, and not solely for the business operations of the Premises, then the District shall also have the right to examine and audit that part of said books, records, financial statements, and documentation of the larger business operation.

Tenant's failure to keep such books of account, records, financial statements, and documentation and make them available for inspection by District is a breach of this Permit and cause for termination. The Executive Director of District shall have the discretion to require the installation of any additional accounting methods or controls he may deem necessary, subject to prior written notice. In the event the Tenant does not make available the original records and books of account at the Premises or within the limits of San Diego County, Tenant agrees to pay all necessary travel expenses incurred by District in conducting an audit at the location where said records and books of account are maintained.

Additionally, if the audit reveals a discrepancy of more than five percent (5%) between the rent due as reported by Tenant and the rent due as determined by the audit, and/or Tenant has failed to maintain complete and accurate books of account, records, financial statements, and documentation in accordance with this Permit, then Tenant shall pay the cost of the audit, as determined by the Executive Director of District, plus the rent determined to have been underpaid. In addition, should Tenant fail to pay said amounts within thirty (30) days after written notice from District, then Tenant shall pay an additional fee of ten percent (10%) of said unpaid amounts as compensation to District for administrative costs and loss of interest as previously described herein, along with the rent determined to have been underpaid.

Furthermore, if the audit reveals that rent due to District is less than five percent (5%) between the rent due as reported by Tenant and the rent due as determined by the audit, and should Tenant fail to pay said unpaid rent within thirty (30) days after written notice from District, then Tenant shall pay an additional fee of ten percent (10%) of said unpaid rent as compensation to District for administrative costs and loss of interest as previously described herein, along with the rent determined to have been underpaid.

Tenant agrees to pay such amounts and further agrees that the specific late charges represent a fair and reasonable estimate of the costs that District will incur from Tenant's late payment. Acceptance of late charges and any portion of the late payment by District shall in no event constitute a waiver of Tenant's default with respect to late payment, nor prevent District from exercising any of the other rights and remedies granted in this Permit. The Executive Director of District shall have the right to waive for good cause any late charges upon written application of Tenant for any such delinquency period.

(i) Gross income as set forth in this Paragraph 2 shall include all income resulting from occupancy or use of the Premises in any manner, whether by Tenant, its sublessees or concessionaires, or parties operating through Tenant, its sublessees, or concessionaires, from whatever source derived, and whether for cash or credit.

Gross income shall include any manufacturer's or importer's excise tax included in the prices of the goods sold, even though the manufacturer or importer is also the retailer thereof, and it is immaterial whether the amount of such excise tax is stated as a separate charge.

Gross income, however, shall not include any of the following: (1) sales of United States postage; (2) any sales or excise taxes payable by Tenant to

any governmental agency as a direct result of operations under this Permit, provided that the amount of such taxes is shown on the books and records elsewhere herein required to be maintained; (3) gratuities, provided the customer voluntarily determines the amount of said gratuity to be paid, or the customer is aware that the Tenant has added a pre-established gratuity to the charge for the services rendered and said additional amount is segregated and identified as a gratuity on the billing to the customer; and (4) food, beverages, and merchandise sold at the Premises through another tenant of District if said tenant reports those sales and pays percentage rent to District on those sales pursuant to said tenant's written agreement with District. Further, refunds for goods returned shall be deducted from current gross income upon their return.

(j) Tidelands Activation Program (formerly Marketing Sponsorship Agreement): The Parties acknowledge and agree the total amounts of cash and services provided by District through the 2016 Tidelands Activation Program may not equal the sums of cash and services granted in the Tidelands Activation Program Agreement. In such a case, there is not a breach of the Tidelands Activation Program Agreement by District. In the event Tenant disputes the terms of the Tidelands Activation Agreement, Tenant shall have no right to a credit or offset in any other agreements inclusive of this Permit, Temporary Use Occupancy Permit (TUOP) or leases between the Parties.

3. **USE:** The above-described premises shall be used only and exclusively for the purpose of erecting the Stage, Cabaret, Gallery, and supporting facilities pursuant to Exhibit "B," attached hereto and by this reference made a part hereof; conducting rehearsals and sound checks for tenant and subtenants, with the limitation that rehearsals and sound checks conducted by subtenants together shall not exceed two (2) hours; conducting concerts and events held by the Tenant and its subtenants, which concerts and events shall not include hard rock music performances; dismantling said setup; restoring the Premises to the condition as maintained by the District prior to Tenant's occupancy of the Premises and for no other purpose whatsoever without the prior written consent of the Executive Director of District in each instance.

In connection with events, performances, and rehearsals, Tenant may reserve for itself and its subtenants, on the northwest side of the paved parking facility for Embarcadero Marina Park South (EMPS), no more than fifty (52) metered parking spaces, specifically those with meter numbers 8068 through 8119; the five (5), "2 Hour Parking" marked parking spaces located adjacent to the ramp entering the grass area of the Embarcadero Marina Park South; and two (2) unmetered, handicap parking spaces

between meter spaces 8109 & 8110; for a total of fifty-nine (59) parking spaces pursuant to Exhibit "C," attached hereto and by this reference made a part hereof.

The 59 designated parking spaces must be available to the public up to three (3) hours prior to scheduled concerts or events. No parking spaces may be reserved or blocked from public use by Tenant or subtenants on days when no events, performances, or rehearsals are occurring.

Use of the Premises according to this Paragraph 3 is further limited by and subject to the following terms, which terms the parties hereto agree are reasonable; and unless otherwise specified, where District consent is required, it shall be granted or denied in the District's sole and absolute discretion:

(a) Concert Schedule: Prior to the commencement of the term of this Permit, Tenant shall submit for District's consent a complete list of all concerts and events to be held during the term of this Permit including the promoter, the name of the musical group, the maximum number of tickets to be issued, a reasonable characterization of the type of music the group will play, and the dates and times at which each concert and event is to commence and end. Any requested changes to the schedule shall be submitted in writing to the District for its written consent at least forty-eight (48) hours in advance and shall be deemed denied unless the District responds in writing otherwise by the date to which the requested change pertains. The number of concerts conducted by Tenant and subtenants shall not exceed thirty-seven (37) during the term of this Permit.

Tenant shall not conduct or schedule concerts, performances or allow other events, either by Tenant or by subtenant, on the Premises or have use of the fifty nine (59) parking spaces in EMPS, from July 20, 2016 to July 25, 2016 (Comic-Con International: San Diego), unless this Permit is amended in writing and fully executed by Tenant and District to allow for such use by Tenant or by subtenant.

(b) Curfew: All concerts shall end by 10:00 p.m., with the exception that a total of four (4) concerts conducted by Tenant and subtenants may end no later than 10:30 p.m. Any and all agreements by Tenant and its subtenants concerning musical acts performing at the Premises shall include the curfew. By 5:00 p.m. on the second business day following the concert, Tenant shall submit to the District its statement signed under penalty of perjury confirming the time by which the concert ended.

(c) Sound Restrictions and Noise Monitoring Reports: All concerts performed by subtenants and two (2) concerts performed by Tenant shall be

monitored by a reputable and independent third-party sound expert experienced and knowledgeable in the monitoring of noise levels. Prior to the commencement of the Term of this Permit, Tenant shall notify the District in writing of its selected expert. Subtenant concerts shall be monitored from the soundboard and from no fewer than two (2) locations facing the Premises in the City of Coronado. At no time shall the noise levels at the soundboard exceed an average 95db per fifteen (15) minute interval. Any and all agreements by Tenant and its subtenants concerning musical acts performing at the Premises shall include the noise level restrictions. By 5:00 p.m. on the second business day following each subtenant concert and the two (2) selected Tenant concerts, Tenant shall submit to the District its noise monitoring reports signed under penalty of perjury by Tenant. If either of the two (2) Tenant monitored concerts exceed the noise levels as addressed above, Tenant will then be required to monitor three (3) additional Tenant performed concerts. Additional Sound and Noise mitigation measures are identified below in section 3(f)(viii).

(d) Public Access Plan: Prior to the commencement of the term of this Permit, Tenant shall submit for District's consent a public access plan depicting the location of all temporary improvements to be erected on the Premises. The plan shall include designated public access areas. On days Tenant and its subtenants are not using the Premises, Tenant at its sole expense shall allow the public to access the designated public access areas without charge.

(e) Special Event Permits: On days Tenant and its subtenants are not using the Premises, District shall have the right to issue Special Event Permits and to control the public access areas on the Premises without compensation to Tenant. District and Tenant shall coordinate requests to hold special events in the public access areas through District's Special Events and Permitting Associate, and shall cooperate to ensure that reasonable requests are accommodated.

(f) Mitigation Measures: Tenant shall comply with all project conditions and mitigation measures contained in the Final Subsequent Mitigated Negative Declaration (FSMND) "San Diego Symphony Summer Pops, Embarcadero Marina Park South," (UPD #83356-SMND-211; Clerk's Document #51555) and the resolution adopting said FSMND, Resolution No. 2007-49, adopted by the Board of Port Commissioners on March 13, 2007, and the mitigation measures modified by the Board of Port Commissioners on May 4, 2010 (Resolution No. 2010-72) and contained in the Addendum to the FSMND. The mitigation measures are as follows:

(i) A written agreement with transit authorities stating that public transit will be available to Tenant and subtenant's convert or event attendees during and after the times of the concert, and to adjacent parking areas.

(ii) Tenant shall ensure that the public parking stalls at the Embarcadero Marina Park South shall be reserved for the public utilizing the Embarcadero Marina Park South area. A minimum of one (1) security person shall be provided to enforce this provision and shall not re-route or change the normal traffic pattern around the parking lot for access to the public parking stalls. The security person shall be in place at least one hour prior to concert activities and stay until at least 30 minutes after the first concert music begins. No concert attendees shall be permitted to enter by automobile or to park in the public parking spaces on the Marina Park, except for those 59 spaces dedicated for Tenant's use.

(iii) Prior to issuance of the Permit, Tenant shall provide District written agreements with offsite parking lot operators and shuttle operators that they will provide adequate parking and shuttle service when the San Diego Convention Center parking is wholly or partially unavailable.

(iv) A written agreement with the San Diego Convention Center parking operator that the parking lot operator concurs with the Transportation Management Plan, and that the use of the San Diego Convention Center parking for Tenant's concert and event attendees is permissible when the scheduled activities occurring at the San Diego Convention Center do not require full-capacity use of the San Diego Convention Center parking facility.

(v) Tenant shall provide security persons to maintain an orderly flow of pedestrian/vehicular traffic in this inbound travel lane until pedestrian traffic has been reduced to a level that pedestrian traffic can utilize existing sidewalk facilities. These security persons shall be in place one half hour prior to the last symphony music played.

(vi) A written agreement with the Special Events Unit of the San Diego Police Department that states the proposed pedestrian control plan, and the Tenant's use of security personnel to control pedestrian traffic crossings in the vicinity, is adequate to protect the public from automobile traffic.

(vii) Appropriate signage provided by Tenant will be necessary to direct pedestrian/vehicular traffic. Tenant will be responsible for signage requirements.

(viii) Two concerts will be monitored for sound levels both on-site and off-site. The maximum sound level allowed is 95 dBA at the "Front of House" mix position, except for a 15-minute segment. This 95 dBA "Front of House" limit is to be considered in both on-site and off-site monitoring. Sound monitoring shall be conducted during each concert, and financial penalties for exceeding the maximum sound level or curfew shall be:

a. $5,000 for first offense;

b. $10,000 for second offense; and

c. $15,000 for third offense and a return to the Board of Port Commissioners for a decision about whether or not to terminate the Permit.

(ix) Hard rock concerts shall not be allowed in the concert program.

(x) Rehearsals and sound checks shall be conducted for a maximum of two hours in the afternoon of the day of each concert.

(xi) A reporting system, including a hotline, shall be available throughout the concert season to record, log, and respond to complaints. If a substantial number of noise complaints are received the District reserves the right to modify the noise monitoring requirements.

(xii) The speakers at the venue will be rotated 10° towards the Convention Center per the modeling performed in the Eilar Associates noise report (included as Appendix A to the 2007 SMND).

(xiii) The temporary buildings and structures shall be of a color that will blend with the environment.

(xiv) The inner fence shall have green screening.

The FSMND and Addendum to the FSMND are attached hereto as Exhibit "D" and Exhibit "E," respectively, and by this reference made a part hereof. Prior to the execution of this Permit, Tenant shall submit plans for District's consent detailing the methods by which Tenant proposes to comply with the FSMND.

Coastal Development Permit: Tenant shall comply with the San Diego Symphony Summer Pops Concert Series Coastal Development Permit

(CDP-2014-01; Doc. No. 61839) (CDP) attached hereto as Exhibit "F" and by this reference made a part hereof. If any of the terms or conditions of this Permit conflict with the CDP, the CDP shall control; provided, however, this Permit may include additional terms and conditions that shall be performed and complied with by Tenant.

4. **ASSIGNMENT-SUBLEASE-ENCUMBRANCE:** Tenant shall not encumber this Permit, the Premises thereof and the improvements thereon by a deed of trust, mortgage, or any other security instrument without the express written consent of the District. Furthermore, neither the whole nor any part of the Premises nor any of the rights or privileges granted by this Permit shall be assignable or transferable in any way without such consent. Nor shall Tenant grant any permission to any other person to occupy any portion of the Premises without such consent. Any such purported assignment, transfer, sublease, encumbrance, or permission given without such consent shall be void as to District.

5. **CHANGES OR ALTERATIONS:** Tenant acknowledges prior examination of the premises and the condition thereof, and agrees that the improvements thereon, if any, are in their present condition, satisfactory and usable for Tenant's purposes and that no representations as to value or condition have been made by or on behalf of District.

Tenant shall make no changes or alterations in the Premises, nor make, erect, or install any buildings, structures, signs, machines, or other improvements on the Premises without the consent in writing of the Executive Director of District. Tenant further agrees to provide the proper containers for trash and to keep the Premises free and clear of rubbish, debris, and litter at all times.

6. **MAINTENANCE:** Tenant hereby agrees that the Premises are in a good and tenantable condition, that Tenant will take good care of the Premises and appurtenances, including any personal property belonging to District; and that Tenant, as a part of the consideration for rental stated above, will at Tenant's sole cost and expense keep and maintain the Premises, appurtenances, and personal property in good and sanitary condition and repair during the term of this Permit, subject to normal and ordinary wear and tear resulting from the use of the Premises as herein provided. District shall at no time during the term of this Permit be required to make any improvements or repairs to the Premises. If any repairs are made by the District, the cost of labor and materials will be billed to the Tenant. Tenant and District staff together, shall complete a site inspection regularly during the term of this agreement to determine maintenance needs in an effort to keep the Premises in good condition.

Tenant agrees that it is solely responsible to restore the Premises to the condition that existed on the commencement date of this Permit including, but not limited to: restoring and/or replacing grass (no less than 7,500 square feet of new sod), plants and other

landscape materials; repairing broken lights, irrigation lines, sprinkler heads, and breaks in utility lines; and repairing asphalt, concrete and other hardscape areas. The District acknowledges that the City of San Diego or other governing authorities may impose watering restrictions and expects Tenant to follow the restrictions, unless a special variance can be obtained. Should a variance not be obtained, Tenant shall return the grass to the similar condition of the neighboring grass area at Embarcadero Marina Park North if City or other governing authorities watering restrictions are imposed.

7. **TITLE TO IMPROVEMENTS:** On the commencement date of the term of this Permit, all existing structures, buildings, installations, and improvements of any kind located on the Premises are owned by and title thereto is vested in District. All said existing structures, buildings, installations, and improvements as well as all structures, buildings, installations, and improvements placed on the Premises by Tenant subsequent to the commencement date of the term of this Permit shall at the option of District be removed by Tenant at Tenant's expense within thirty (30) days after the expiration of the term of this Permit or sooner termination thereof. District may exercise said option as to any or all of the structures, buildings, installations, and improvements, either before or after the expiration or sooner termination of this Permit. If District exercises such option and Tenant fails to remove such structures, buildings, installations, and improvements within said thirty (30) days, the District shall have the right to have such structures, buildings, installations, and improvements removed at the expense of Tenant. As to any or all structures, buildings, installations, and improvements owned by Tenant for which District does not exercise said option for removal, title thereto shall vest in District, without cost to District and without payment to Tenant.

Machines, appliances, equipment, and trade fixtures of any kind placed on the Premises by Tenant are owned by and title thereto is vested in Tenant and shall be removed by Tenant within thirty (30) days after the expiration of the term of this Permit or sooner termination thereof; provided, however, Tenant agrees to repair any and all damage occasioned by the removal thereof. If any such machines, appliances, equipment, and trade fixtures are not removed within thirty (30) days after the termination of this Permit, the same may be considered abandoned and shall thereupon become the property of District without cost to the District and without payment to Tenant, except that District shall have the right to have the same removed at the expense of Tenant.

During any period of time employed by Tenant under this paragraph to remove structures, buildings, installations, improvements, machines, appliances, equipment and trade fixtures, Tenant shall pay $500 per day to the District.

8. **REMOVAL OF MATERIALS:** Tenant hereby agrees that upon the expiration of this Permit or the sooner termination as herein provided, it will remove all temporary

improvements from the Premises, so as to leave the same in as good condition as when first occupied by Tenant, subject to reasonable wear and tear; provided, however, that if all temporary improvements are not removed pursuant to Paragraph 8, District may remove, sell, or destroy the same at the expense of Tenant; and Tenant hereby agrees to pay District the cost of such removal, sale, or destruction; or at the option of District, said temporary improvements shall become the property of District.

During any period of time employed by Tenant under this paragraph 8 to remove Tenant's temporary improvements, or test for and/or remediate Contaminants as required in this Permit, Tenant shall pay fixed rent of Five Hundred Dollars ($500) per day to District.

9. **TERMINATION:** This Permit may be terminated (i) by Executive Director of District or her duly authorized representative or Tenant as a matter of right and without cause at any time upon the giving of thirty (30) days' notice in writing to the other party of such termination or (ii) by the Board of Port Commissioners as set forth in Paragraph 15 below.

10. **HOLD HARMLESS**: Tenant shall, except for Claims (as that term is defined below) arising from the sole negligence or willful misconduct of District, defend, indemnify and hold harmless the District and its officials, officers, representatives, agents, and employees from any litigation, claim, action, proceeding, loss, damage, cost, expense (including, without limitation, all attorneys' fees and consultant/expert fees), award, fine, penalty or judgment (collectively, "Claims") arising directly or indirectly out of, from, or in connection with: (a) the obligations undertaken in connection with this Permit; (b) the possession, use, occupancy, operation or development of the Premises by Tenant or Tenant's representatives, agents, employees, consultants, contractors, invitees, subtenants, successors, assigns or similar users/affiliates (collectively, "Tenant Affiliate"); (c) the approval of this Permit, or other permits or approvals granted to Tenant or a Tenant Affiliate related to the Premises, including, but not limited to, approvals or permits for the development of any structures, buildings, installations, and improvements on the Premises, or use of the Premises (collectively, "Related Approvals"); and (d) environmental documents, mitigation and/or monitoring plans, or determinations conducted and adopted pursuant to the California Environmental Quality Act or the National Environmental Policy Act for this Permit or Related Approvals.

Tenant acknowledges and agrees that it is the sole and exclusive responsibility of Tenant, and not the District, to: (a) ensure that all persons and/or entities (including, but not limited to, Tenant or a Tenant Affiliate) who provide any labor, services, equipment and/or materials (collectively, "Services") in connection with the development, construction, possession, use, occupancy, or operation of the Premises, this Permit and

Related Approvals shall comply with the requirements of California's and any other prevailing wage laws ("PWL") to the extent such laws are applicable and (b) determine whether any Services are subject to the PWL. The obligations to defend, indemnification and hold the District harmless shall apply to, in addition to other Claims, any and all PWL Claims, except for those arising from the sole negligence or willful misconduct of District.

The District may, in its sole and absolute discretion and in good faith, participate in the defense of any Claims and the Tenant shall reimburse District for said defense, including, but not limited to, reimbursement for outside attorneys' and experts' fees, and other costs. The District's participation shall not relieve the Tenant of any of its obligations under this Paragraph. The District shall provide reasonable notice to the Tenant of its receipt of any Claims.

This Paragraph and the other obligations of Tenant under this Permit are independent of, and in addition to, the obligations of Tenant under any existing lease(s), other contractual agreement(s) or permits with or granted by the District, and are binding upon Tenant, and its agents, representatives, successors and assigns. This Paragraph shall survive the term of this Permit.

11. **INSURANCE**: Tenant shall maintain insurance acceptable to District in full force and effect throughout the term of this Permit. The policies for said insurance shall, as a minimum, provide the following:

(a) Forms of Coverage

(1) "OCCURRENCE" form Commercial General Liability covering the Premises, operations, and contractual liability assumed by Tenant in this Permit in the amount of not less than Five Million Dollars ($5,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage. The general aggregate shall be Ten Million Dollars ($10,000,000) unless a Five Million Dollars ($5,000,000) per location aggregate limit is provided separate by endorsement.

If alcoholic beverages are served or sold on the Premises, Liquor Liability coverage in the amount of not less than Two Million Dollars ($2,000,000) shall be obtained. If no alcoholic beverages are served or sold on the Premises, the proof of insurance shall so state.

(2) All Risk Property Coverage, including water damage and debris cleanup provisions, in an amount not less than the full replacement value of all Improvements located within the Premises without

deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include business interruption and extra expense for full recovery of the net profits and continuing expenses (including the rent to District) for the duration of the period of restoration, a vandalism and malicious mischief endorsement, sprinkler leakage coverage and, if so required by District, flood and earthquake coverage. The coverage policies shall be endorsed with a Loss Payee endorsement in favor of District. It is agreed that any insurance proceeds in excess of Twenty-Five Thousand Dollars ($25,000) resulting from a loss under said policies shall be payable jointly to District and Tenant to ensure that said proceeds will be reinvested in rebuilding and/or repairing the damaged portions of the Premises and any damaged or destroyed improvements located thereon. However, if there is a Tenant Encumbrance held by a Financial Institution encumbering the leasehold, then all proceeds from such policies of insurance shall be payable in trust with safeguards reasonably acceptable to District to the Consented to Lender which is a Financial Institution to be disbursed for the repair and restoration of the Premises (or, if there is no Consented to Lender, or the Consented to Lender declines to hold and disburse such proceeds, to a bank or trust company doing business in the County of San Diego agreed upon by the parties, or if the parties fail to agree, to Bank of America, N.A., or its successor, which proceeds shall be deposited in interest bearing accounts or deposits agreed upon by the parties, or if the parties fail to agree, then in the bank's regular passbook savings account). All interest shall be added to the trust funds to be disbursed with the principal. All proceeds shall be disbursed in progress payments for the payment of the cost of repairing or restoring the property so damaged or destroyed. The specific manner of holding such proceeds and the method and conditions of disbursement shall be subject to the prior written approval of District so as to ensure the application of such proceeds in compliance with this Permit.

(i) In the event that this Permit is terminated with consent of both District and said mortgagee or beneficiary, and the improvements are not reconstructed, repaired, or replaced, the insurance proceeds shall be retained, without liability, by said mortgagee or beneficiary to the extent necessary to fully discharge the debt secured by said mortgage or deed of trust. Furthermore, said mortgagee or beneficiary shall hold the balance thereof to restore the Premises to a neat and clean condition. Any remaining funds shall lastly be paid to District and Tenant, as their interests may appear.

(3) In the event underground storage tanks are located on the Premises, Tenant is required to comply with Code of Federal Regulations, Title 40, Chapter I, Subchapter H or Title 23, Division 3, Chapter 18 of California Code of Regulations, collectively, herein "UST Law." At the time Tenant is required to comply with any provisions of UST Law requiring financial assurance mechanisms, Tenant shall provide District with a certified copy of its Certification of Financial Responsibility. If Tenant's program for financial responsibility requires insurance, then Tenant's policy(ies) shall name District and its officers, employees, and agents as additional insureds, and all other terms of Subparagraph (b), below, shall apply. Should Tenant change its financial assurance mechanisms, Tenant shall immediately provide District with a certified copy of its revised Certification of Financial Responsibility.

(b) General Requirements

(1) All required insurance shall be in force the first day of the term of this Permit, and shall be maintained continuously in force throughout the term of this Permit. In addition, the cost of all required insurance shall be borne by Tenant. During the entire term of this Permit, Tenant shall provide District with Certificates, in a form acceptable to District, evidencing the existence of the necessary insurance policies and original endorsements effecting coverage required by this Paragraph. The Certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind insurance on its behalf. Notwithstanding the forgoing, District reserves the right to require complete, certified copies of all required policies at any time.

(2) All liability insurance policies shall name, or be endorsed to name District and its officers, employees, and agents as additional insureds and protect District and its officers, employees, and agents against any legal costs in defending claims. All liability policies shall provide cross-liability coverage. All insurance policies shall be endorsed to state that coverage will not be suspended, voided, cancelled, or reduced in coverage or in limits, except after Tenant has furnished District with thirty (30) days' prior written notice by certified mail. All insurance policies shall be endorsed to state that Tenant's insurance is primary and not excess or contributory to any insurance issued in the name of District. Further, all insurance companies must be satisfactory to District.

(3) Any deductibles or self-insured retentions must be declared and acceptable to District. If the deductibles or self-insured retentions are unacceptable to District, then Tenant shall have the option to

either: (i) reduce or eliminate such deductibles or self-insured retentions as respects the District and its officers, employees, and agents; or, (ii) procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

(4) District shall retain the right at any time to review the coverage, form, and amount of insurance required herein. If, in the opinion of District, the insurance provisions in this Permit do not provide adequate protection for District and/or members of the public using the Premises or using services connected with Tenant's use or occupancy of the Premises, District may require Tenant to obtain insurance sufficient in coverage, form and amount to provide adequate protection. District's requirements shall be reasonable, but shall be designed to ensure protection from and against the kind and extent of risks that exist at the time a change in insurance is required.

(5) District may require that Tenant obtain and maintain additional or increased insurance from time to time. District shall notify Tenant in writing of changes in the insurance requirements. With respect to changes in insurance requirements that are available from Tenant's then-existing insurance carrier, Tenant shall deposit Certificates evidencing acceptable insurance policies with District incorporating such changes within sixty (60) days of receipt of such notice. With respect to changes in insurance requirements that are not available from Tenant's then- existing insurance carrier, Tenant shall deposit Certificates evidencing acceptable insurance policies with District, incorporating such changes, within one hundred twenty (120) days of receipt of such notice. In the event Tenant fails to deposit insurance Certificates as required herein, this Permit shall be in default without further notice to Tenant, and District shall be entitled to exercise all legal remedies. Without limitation of the foregoing, Tenant agrees that if Tenant does not take out and maintain such insurance or furnish District with renewals or binders in a timely manner, District may (but shall not be required to), procure said insurance on Tenant's behalf and charge Tenant the cost thereof, which amount shall be payable by Tenant within thirty (30) days of written demand with interest at the Default Rate from the date such sums are expended.

(6) If Tenant fails or refuses to maintain insurance as required in this Permit, or fails to provide proof of insurance, District has the right to declare this Permit in default without further notice to Tenant, and District shall be entitled to exercise all legal remedies.

(7) The procuring of such required policies of insurance shall not be construed to limit Tenant's liability hereunder, nor to fulfill the indemnification provisions and requirements of this Permit. Notwithstanding said policies of insurance, Tenant shall be obligated for the full and total amount of any damage, injury, or loss caused by negligence or neglect connected with this Permit or with the use or occupancy of the Premises.

(8) Tenant agrees not to use the Premises in any manner, even if use is for purposes stated herein, that will result in the cancellation of any insurance District may have on the Premises or on adjacent premises, or that will cause cancellation of any other insurance coverage for the Premises or adjoining premises. Tenant further agrees not to keep on the Premises or permit to be kept, used, or sold thereon, anything prohibited by any fire or other insurance policy covering the Premises. Tenant shall, at its sole expense, comply with all reasonable requirements for maintaining fire and other insurance coverage on the Premises.

12. **TAXES AND UTILITIES:** This Permit may result in a taxable possessory interest and be subject to the payment of property taxes. Tenant agrees to and shall pay before delinquency all taxes and assessments of any kind assessed or levied upon Tenant or the Premises by reason of this Permit or of any buildings, machines, or other improvements of any nature whatsoever erected, installed, or maintained by Tenant or by reason of the business or other activities of Tenant upon or in connection with the Premises. Tenant shall also pay any fees imposed by law for licenses or permits for any business or activities of Tenant upon the Premises or under this Permit, and shall pay before delinquency any and all charges for utilities at or on the Premises.

Tenant shall pay for its electricity use upon receipt of an invoice from the District. The amount due will be calculated by subtracting the average monthly San Diego Gas & Electric electricity invoices to the Port for the premises during the eight months the Tenant is not using the premises (October 2015 through May 2016) from the actual monthly bill during each of the four months (June 2016 through September 2016) when the Tenant is using the Premises.

13. **CONFORMANCE WITH RULES AND REGULATIONS:** Tenant agrees that, in all activities on or in connection with the Premises, and in all uses thereof, including the making of any alterations, changes, installations, or other improvements, it shall abide by and conform to all laws and regulations. Said laws and regulations shall include, but are not limited to those prescribed by the San Diego Unified Port District Act; any ordinances of the city in which the Premises are located, including the Building Code thereof; any ordinances and general rules of District, including tariffs; and any applicable laws of the state of California and federal government, as any of the same

now exist or may hereafter be adopted or amended. In particular and without limitation, Tenant shall have the sole and exclusive obligation and responsibility to comply with the requirements of: (i) Article 10 of District Code entitled "Stormwater Management and Discharge Control," and (ii) the Americans With Disabilities Act of 1990, including but not limited to regulations promulgated thereunder, and District shall have no obligations or responsibilities as to the Premises.

Tenant is responsible for verifying the requirements for all permits required by the City of San Diego including, but not limited to Health Permits, structural permits, plumbing permits, electrical permits, etc. and must abide by the requirements of the City of San Diego. Copies of all permits must be submitted to the District prior to the first concert.

14. **COMPLIANCE WITH PREVAILING WAGE LAWS:** Tenant acknowledges and agrees that: (1) it is the sole and exclusive responsibility of the Tenant, and not the District's, to ensure that all persons and/or entities who provide any labor, services and/or equipment in connection with any construction or work of improvement on any land or water areas occupied by Tenant, shall comply with the requirements of California's prevailing wages laws (the "PWL"); and (2) it is the sole and exclusive responsibility of Tenant, and not the District's, to determine whether such construction or work of improvement is subject to the PWL by obtaining such a determination from the Director of California's Department of Industrial Relations or by any other means, that do not involve the District. If such construction or work of improvement is determined to be subject to the PWL, Tenant shall comply with all applicable provisions of the PWL, and shall ensure that all persons and/or entities who provide any labor, services, equipment and/or materials in connection with such construction or work of improvement shall likewise comply with all applicable provisions of the PWL.

Tenant further acknowledges and agrees that Tenant's failure to comply with all applicable provisions of the PWL, and ensure that all persons and/or entities who provide any labor, services, equipment and/or materials in connection with such construction or work of improvement shall likewise comply with all applicable provisions of the PWL, will render Tenant, and not the District, liable for all remedies (inclusive of all applicable fines and penalties), afforded by law as a consequence of such non-compliance. Tenant expressly agrees to defend, indemnify and hold the District harmless, for any claim, demand, liability, loss, damage, cost, expense (including all attorneys' and consultant/expert fees), award, fine, penalty or judgment arising out of, in connection with, or in any way related to the PWL (collectively "PWL Claim"), except for any PWL Claim arising out of the sole negligence or willful misconduct of the District. Tenant's obligation to defend the District hereunder shall arise regardless of the merits of any PWL Claim, and shall continue until such PWL Claim has been resolved by way of a final judgment or settlement, which ever may last occur. Tenant's obligations hereunder are in addition to Tenant's indemnity obligations under Paragraph 10 of this

Permit, and all such indemnity obligations shall survive the termination of this Permit and shall extend to any PWL Claim that may arise after the termination of the Permit, as well as while it is in force.

15. **DEFAULT:** The occurrence of any one (1) or more of the following events shall constitute a default hereunder:

(a) Monetary Default: Failure by Tenant to pay, when due, any Permit-required rent, other payment, security deposit, and/or charge herein, where such failure continues for a period of ten (10) days after written notice thereof.

(b) General Default: Failure by Tenant to fulfill any of the terms, covenants, or conditions of this Permit other than those specifically mentioned in Paragraph 15(c) below.

(c) Curfew and Noise Defaults: Failure by Tenant to comply with the Curfew or Noise and Sound restriction and measures set forth in Paragraph 3 above.

If any default be made under Paragraph 15(a) or 15(b) above, and said default is not cured within ten (10) days after written notice thereof, this Permit shall immediately terminate.

Defaults under Paragraph 15(c) shall run cumulatively during the term of this Permit and are subject to the damages set forth above in paragraph 3(f).

In the event this Permit automatically terminates or is terminated by the District due to a default as described in this Paragraph 15, Tenant shall have no further rights hereunder and shall immediately remove from said Premises; and District shall immediately thereupon, without recourse to the courts, have the right to reenter and take possession of said Premises. District shall further have all other rights and remedies as provided by law, including without limitation the right to recover damages from Tenant in the amount necessary to compensate District for all the detriment proximately caused by Tenant's failure to perform its obligations under this Permit or which in the ordinary course of things would be likely to result therefrom.

16. **LIENS:** Tenant agrees that it will at all times save District free and harmless and defend and indemnify it against all claims and liens for labor, services or materials in connection with improvements, repairs, or alterations on the Premises caused to be performed by Tenant, and the costs of defending against such claims, including reasonable attorney's fees.

17. **BANKRUPTCY:** In the event Tenant commences a proceeding under Chapter XI of the Federal Bankruptcy Act, or is adjudicated bankrupt or insolvent, or a judicial sale is made of Tenant's interest under this Permit, this Permit shall at the option of District immediately terminate and all rights of Tenant hereunder shall immediately cease and terminate.

18. **EASEMENTS:** This Permit and all rights given hereunder shall be subject to all easements and rights-of-way now existing or heretofore granted or reserved by District in, to, or over the Premises for any purpose whatsoever, and shall be subject to such rights-of-way for reasonable access, sewers, pipelines, conduits, and such telephone, telegraph, light, heat, or power lines as may from time to time be determined by District to be in the best interests of the development of the tidelands.

District agrees that such easements and rights-of-way shall be so located and installed as to produce a minimum amount of interference to the business of Tenant.

19. **TITLE OF DISTRICT:** District's title is derived from the provisions of the San Diego Unified Port District Act, Appendix 1, Harbors & Navigation Code, and is subject to the provisions of said Act. This Permit is granted subject to the terms and conditions of said Act.

20. **JOINT AND SEVERAL LIABILITY:** If Tenant, as a party to this Permit, is a partnership or joint venture, or is comprised of more than one party or entity or a combination thereof, the obligations imposed on Tenant under this Permit shall be joint and several, and each general partner, joint venturer, party, or entity of Tenant shall be jointly and severally liable for said obligations. Furthermore, nothing contained herein shall be deemed or construed as creating a partnership or joint venture between District and Tenant or between District and any other entity or party, or cause District to be responsible in any way for the debts or obligations of Tenant, or any other party or entity.

21. **NONDISCRIMINATION:** Tenant agrees at all times to fully comply with all laws prohibiting discrimination against any person or class of persons by reason of sex, color, race, religion, handicap or national origin. If the use provided for in this Permit allows the Tenant to offer accommodations or services to the public, such accommodations or services shall be offered by the Tenant to the public on fair and reasonable terms. In complying with all such laws, including, without limitation, the Americans With Disabilities Act of 1990, Tenant shall be solely responsible for such compliance and required programs and there shall be no allocation of any such responsibility between District and Tenant.

22. **ENTIRE UNDERSTANDING:** This Permit contains the entire understanding of the parties, and Tenant, by accepting the same, acknowledges that there is no other written or oral understanding between the parties in respect to the Premises. No modification, amendment, or alteration of this Permit shall be valid unless it is in writing and signed by the parties hereto.

23. **PEACEABLE SURRENDER:** Upon the termination of this Permit by the expiration thereof or the earlier termination as by the terms of this Permit provided, Tenant will peaceably surrender the Premises in as good condition, subject to normal and ordinary wear and tear resulting from the use of the Premises as herein provided, as the same may be at the time Tenant takes possession thereof, and to allow District to take peaceable possession thereof.

24. **HOLDOVER:** This Permit shall terminate without further notice at expiration of the term. Any holding over by Tenant after either expiration or termination shall not constitute a renewal or extension or give Tenant any rights in or to the Premises. If Tenant, with District's consent, remains in possession of the Premises after expiration or termination of the term or after the date in any notice given by District to Tenant terminating this Permit, such possession by Tenant shall be deemed to be a month-to-month tenancy terminable on thirty (30) days' notice given at any time by either party. During any such month-to-month tenancy, Tenant shall pay fixed rent of Five Hundred Dollars ($500) per day, due monthly on or before the tenth (10th) day of each month.

All provisions of this Permit, except those pertaining to term, shall apply to the month-to-month tenancy.

25. **ACCEPTANCE OF PREMISES:** BY SIGNING THIS PERMIT, TENANT REPRESENTS AND WARRANTS THAT IT HAS INDEPENDENTLY INSPECTED THE PREMISES AND MADE ALL TESTS, INVESTIGATIONS AND OBSERVATIONS NECESSARY TO SATISFY ITSELF OF THE CONDITION OF THE PREMISES. TENANT AGREES IT IS RELYING SOLELY ON SUCH INDEPENDENT INSPECTION, TESTS, INVESTIGATIONS AND OBSERVATIONS IN MAKING THIS PERMIT. TENANT ALSO ACKNOWLEDGES THAT THE PREMISES ARE IN THE CONDITION CALLED FOR BY THIS PERMIT, THAT DISTRICT HAS PERFORMED ALL WORK WITH RESPECT TO PREMISES AND THAT TENANT DOES NOT HOLD DISTRICT RESPONSIBLE FOR ANY DEFECTS IN THE PREMISES. TENANT FURTHERMORE ACCEPTS AND SHALL BE RESPONSIBLE FOR ANY RISK OF HARM TO ANY PERSON AND PROPERTY, INCLUDING WITHOUT LIMITATION EMPLOYEES OF TENANT, FROM ANY LATENT DEFECTS IN THE PREMISES.

Initial: _____ _____
District Tenant

26. **WARRANTIES-GUARANTEES**: District makes no warranty, guarantee, covenant, including but not limited to covenants of title and quiet enjoyment, or averment of any nature whatsoever concerning the condition of the Premises, including the physical condition thereof, or any condition which may affect the Premises; and it is agreed that District will not be responsible for any loss or damage or costs which may be incurred by Tenant by reason of any such condition or conditions.

27. **ATTORNEY'S FEES:** In the event any suit is commenced to enforce, protect or establish any right or remedy of any of the terms and conditions hereof, including without limitation a summary action commenced by District under the laws of the State of California relating to the unlawful detention of property, the prevailing party shall be entitled to have and recover from the losing party reasonable attorney's fees and costs of suit.

28. **HAZARDOUS MATERIALS:** Tenant shall comply with all laws regarding hazardous substances, materials or wastes, or petroleum products or fraction thereof (herein collectively referred to as "Contaminants") relative to occupancy and use of the Premises. Tenant shall be liable and responsible for any Contaminants arising out of the occupancy or use of the Premises by Tenant. Such liability and responsibility shall include, but not be limited to, (i) removal from the Premises any such Contaminants; (ii) removal from any area outside the Premises, including but not limited to surface and groundwater, any such Contaminants generated as part of the operations on the Premises; (iii) damages to persons, property and the Premises; (iv) all claims resulting from those damages; (v) fines imposed by any governmental agency, and (vi) any other liability as provided by law. Tenant shall defend, indemnify and hold harmless the District, its officials, officers, agents, and employees from any and all such responsibilities, damages, claims, fines, liabilities, including without limitation any costs, expenses and attorney's fees therefor. District shall have a direct right of action against Tenant even if no third party has asserted a claim. Furthermore, District shall have the right to assign said indemnity.

If Tenant has in the past or continues to use, dispose, generate, or store Contaminants on the Premises, District, or its designated representatives, at District's sole discretion, may at any time during the term of this Permit, enter upon the Premises and make any inspections, tests or measurements District deems necessary in order to determine if a release of Contaminants has occurred. District shall give Tenant a minimum of twenty-four (24) hours' notice in writing prior to conducting any inspections or tests, unless, in District's sole judgment, circumstances require otherwise, and such tests shall be conducted in a manner so as to attempt to minimize any inconvenience and disruption to Tenant's operations. If such tests indicate a release of Contaminants, then District, at District's sole discretion, may require Tenant, at Tenant's sole expense, and at any time during the term of this Permit, to have tests for such Contaminants conducted by a

qualified party or parties on the Premises. If District has reason to believe that any Contaminants that originated from a release on the Premises have contaminated any area outside the Premises, including but not limited to surface and groundwater, then District, at District's sole discretion, may require Tenant, at Tenant's sole expense, and at any time during the term of this Permit, to have tests for such Contaminants conducted by a qualified party or parties on said area outside the Premises.

The tests conducted by Tenant's qualified party shall include, but not be limited to, applicable comprehensive soil, emission, or groundwater sampling test or other procedures to determine any actual or possible contamination. Tenant shall expeditiously, but no longer than thirty (30) days after District's request for such tests, furnish to District the results of said tests, sampling plans, and analysis thereof identifying any Contaminants which exceed then applicable levels permitted by federal, state, or local laws. Tenant shall report such contamination to the District within seventy-two (72) hours and shall diligently proceed to identify the extent of contamination, how it will be remediated, when it will be remediated, by whom, and the cost of such remediation.

29. **UNDERGROUND STORAGE TANKS:** In the event any underground storage tanks are located on the Premises or hereinafter placed on the Premises by any party during the term or extension of this Permit, Tenant shall be responsible for tank monitoring of all such underground storage tanks as required by the County of San Diego Hazardous Material Management Division (HMMD) or any other responsible agency. Tenant further agrees to take responsibility for reporting unauthorized releases to HMMD and the District within twenty-four (24) hours of such unauthorized release. Tenant will be responsible for all fees and costs related to the unauthorized release of Contaminants including but not limited to investigative, surface and groundwater cleanup, and expert and agency fees. Tenant shall maintain evidence of financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by a release from the underground tank system. Tenant further agrees to be responsible for maintenance and repair of the storage tanks, obtaining tank permits, filing a business plan with HMMD or other responsible agency and for paying underground storage tank fees, permit fees, and other regulatory agency fees relating to underground storage tanks.

Tenant agrees to keep complete and accurate records on the Premises for a period of not less than thirty-six (36) months from the applicable events, including, but not limited to permit applications, monitoring, testing, equipment installation, repairing and closure of the underground storage tanks, and any unauthorized releases of Contaminants and make such records available for District or responsible agency inspection. Tenant further agrees to include a copy of Health and Safety Code, Chapter 6.7, Section 25299, as part of any agreement between Tenant and any Operator of such underground storage tanks.

Furthermore, Tenant shall be responsible for compliance with all other laws and regulations presently existing or hereinafter enacted applicable to underground storage tanks, including without limitation any such laws and regulations which alter any of the above requirements.

30. **ABOVEGROUND STORAGE TANKS:** Tenant shall be responsible for any aboveground storage tanks on the Premises. Tenant shall, in accordance with this Permit and applicable laws and regulations, secure and pay for all necessary permits and approvals, prepare a spill prevention control counter measure plan and conduct periodic inspections to ensure compliance therewith, including conformance with the latest version of said laws and regulations. In addition, Tenant shall maintain and repair said tanks and conform and comply with all other applicable laws and regulations for aboveground storage tanks, including without limitation all of the requirements of Health & Safety Code, Sections 25270 through 25170.13 as presently existing or as hereinafter amended, including without limitation conducting daily visual inspection of said tanks, allowing the San Diego Regional Water Quality Control Board, District, or responsible agency, to conduct periodic inspections and complying with valid orders of said Board, filing the required storage tank statement and payment of the fee therefor, establishing and maintaining the required monitoring program and systems, reporting spills as required, and payment of lawfully imposed penalties as provided therein and as otherwise provided by law. Tenant shall be responsible for all costs associated with an unauthorized release from such tanks, including but not limited to, investigative, surface and groundwater cleanup, expert and agency fees.

31. **SECURITY DEPOSIT**: Prior to the execution of this Permit, A security deposit in the sum of Twenty-Five Thousand Dollars ($25,000) shall be provided to District by Tenant. The security deposit shall be held by District and used for the purposes: (i) of remedying Tenant's defaults in the payment of rent or utilities or; (ii) to repair damages or complete obligations in Paragraph 6 to the Premises or; (iii) to clean the Premises upon termination of this Permit or; (iv) to pay liquidated damages as provided in Paragraph 15 or; (v) to comply with the FSMND and Addendum as provided in Paragraph 3(f).

The security deposit shall be in the form of an Irrevocable Stand-By Letter of Credit drawn on a bank having a branch located in San Diego County or having a Moody's Long Term Letter of Credit rating of single A or higher and a Moody's Long Term Deposit rating of single A or higher. The principal sum shall be made payable to District or order. the Letter of Credit shall be valid for a minimum of three (3) months beyond the expiration date of this Permit. All or any portion of the principal sum of the Letter of Credit shall be available unconditionally to District for the purposes and uses hereinabove provided. The bank, and the form and provisions of the Letter of Credit

shall be acceptable to the Executive Director of District, and if not so acceptable, may be rejected. The Letter of Credit and Drawing Certificate shall not be acceptable if it requires the District to send written notice of default or request or demand payment from Tenant after default, prior to District drawing on any funds under the Letter of Credit.

Tenant shall maintain the required full sum of the security deposit continuously throughout the Permit term. Failure to do so shall be deemed a default and shall be grounds for immediate termination of this Permit in accordance with Paragraph 15.

The security deposit or the remaining portion thereof, shall be rebated, released, assigned, surrendered, or endorsed to Tenant or order, as applicable, after the termination of this Permit.

32. **DISPUTE RESOLUTION:** Except for (i) a dispute or disagreement as to the amount of rent that Tenant is to pay District or (ii) a default in the payment of rent, all other disputes or disagreements between or among the parties arising out of or relating to the terms, conditions, interpretation, performance, default or any other aspect of this Permit, such parties shall first attempt to resolve the dispute informally. In the event the dispute is not resolved informally, prior to and as a precondition to the initiation of any legal action or proceeding, the parties shall refer the dispute to mediation before a retired State or Federal judge mutually selected by the parties. The dispute shall be mediated through informal, nonbinding joint conferences or separate caucuses with an impartial third party mediator who will seek to guide the parties to a consensual resolution of the dispute. The mediation proceeding shall be conducted within thirty (30) days (or any mutually agreed longer period) after referral, and shall continue until any party involved concludes, in good faith, that there is no reasonable possibility of resolving the dispute without resort to a legal action or proceeding. All costs of the mediation shall be shared equally by the parties involved. Each party shall bear its own attorneys' fees and other costs incurred in connection with the mediation. In the event the parties are unable to resolve the dispute through mediation, in addition to any other rights or remedies, any party may institute a legal action.

33. **NOTICES:** Any notice or notices provided for by this Permit or by law to be given or served upon Tenant may be given or served by certified or registered letter addressed to Tenant at 1245 Seventh Avenue, San Diego, California 92101 and deposited in the United States mail, or may be served personally upon said Tenant or any person hereafter authorized by it in writing to receive such notice; and that any notice or notices provided for by this Permit or by law to be served upon District may be given or served by certified or registered letter addressed to Executive Director of District at the Administrative Offices of the San Diego Unified Port District, Post Office Box 120488, San Diego, California 92112-0488, and deposited in the United States mail, or may be served personally upon said Executive Director or his duly authorized

representative; and that any notice or notices given or served as provided herein shall be effectual and binding for all purposes upon the parties so served.

34. **SECTION HEADINGS:** The section headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision hereof.

35. **SIGNATURE OF PARTIES:** It is an express condition of this Permit that said Permit shall not be complete nor effective until signed by either the Executive Director or his authorized designee on behalf of District and by other party.

APPROVED AS TO FORM AND LEGALITY
GENERAL COUNSEL

By: _____
~~Assistant~~/Deputy
KANN

SAN DIEGO UNIFIED PORT DISTRICT

By: _____
Shaun D. Sumner
Assistant Vice President
Real Estate Development

SAN DIEGO SYMPHONY ORCHESTRA ASSOCIATION, a California non-profit public benefit corporation

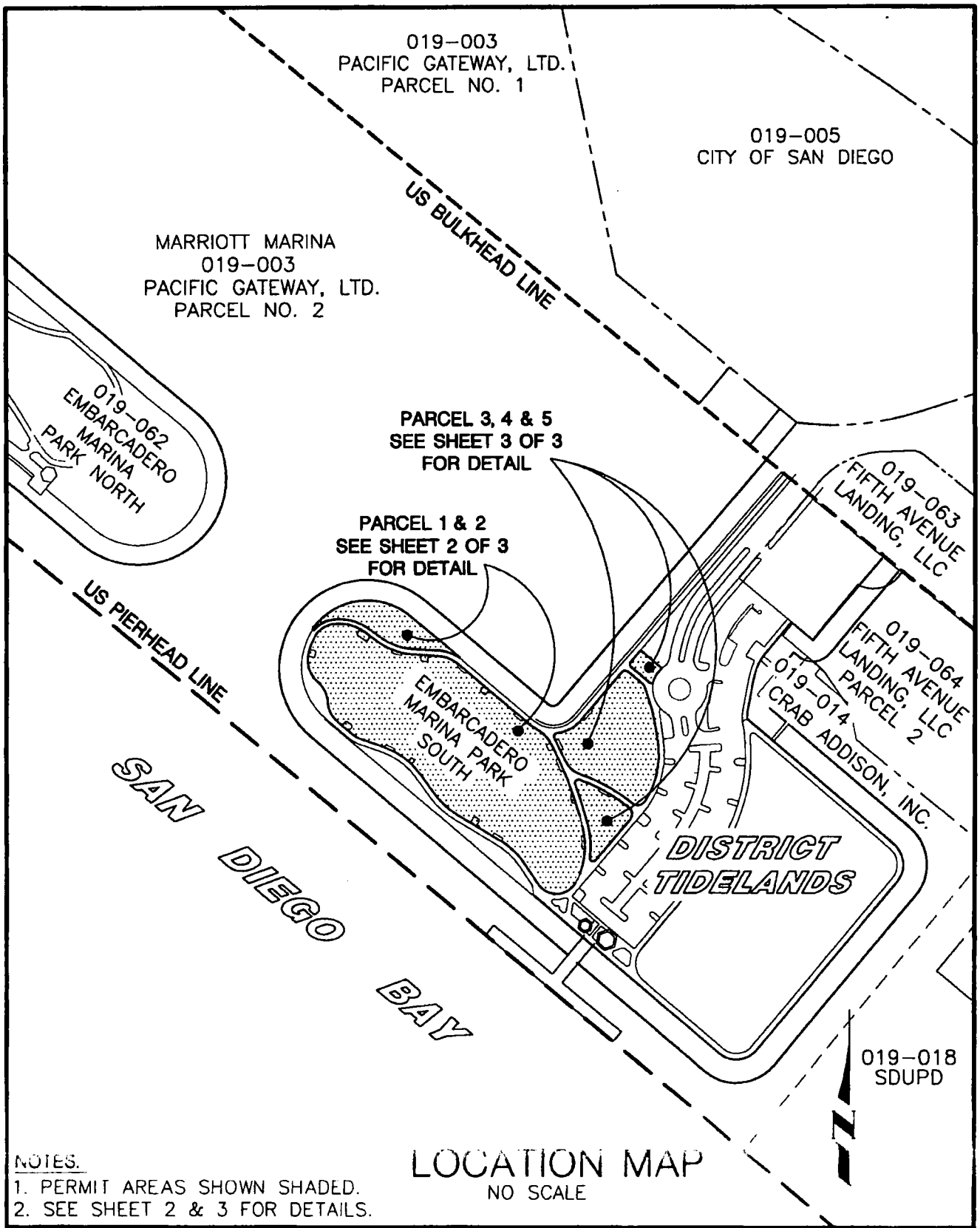
By _____
Signature

PRINT NAME: MARTHA A. GILMER

PRINT TITLE: CEO

SDUPD Docs No. 1085759

Exhibit "A"



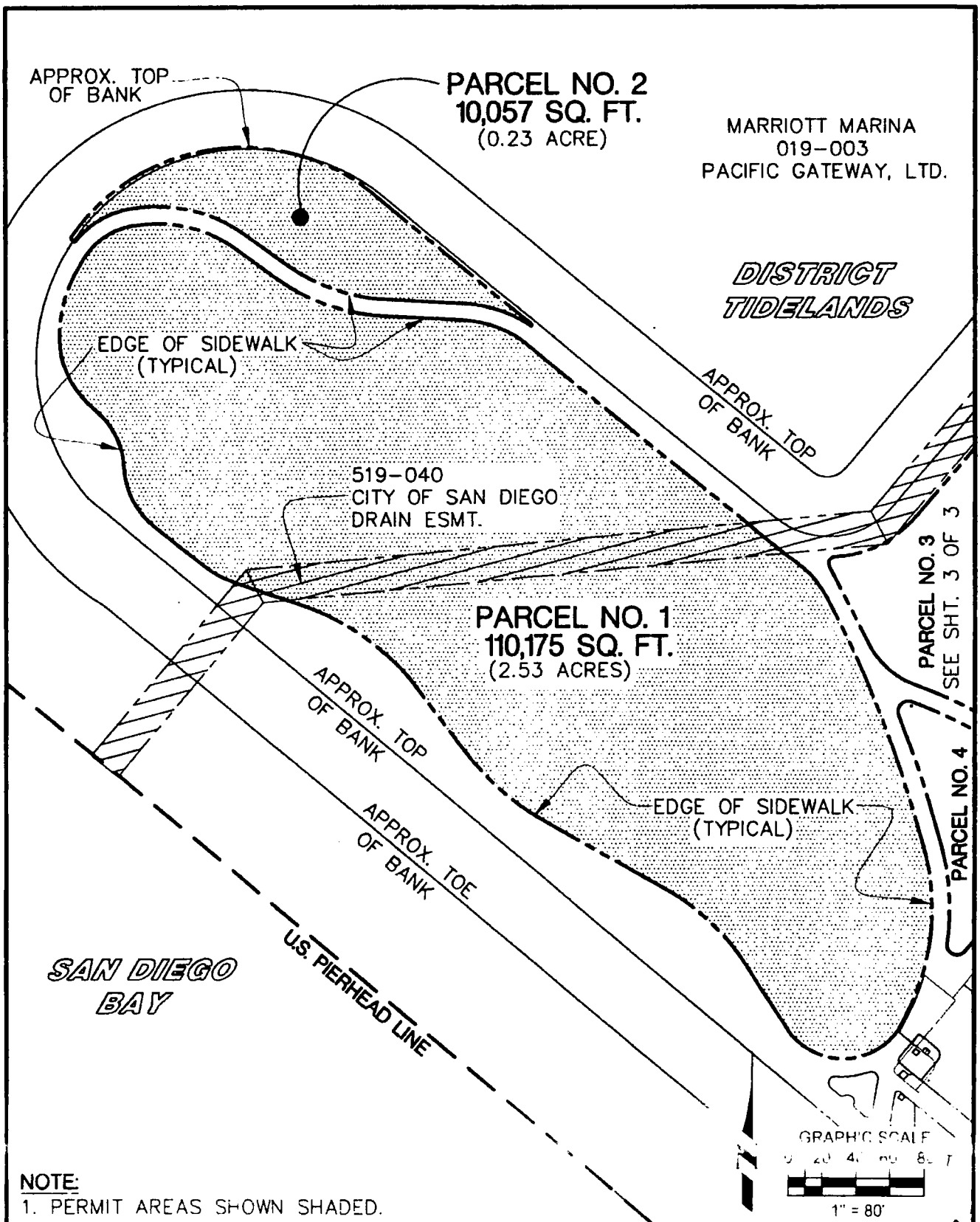
NOTES.
1. PERMIT AREAS SHOWN SHADED.
2. SEE SHEET 2 & 3 FOR DETAILS.

LOCATION MAP
NO SCALE

DRAWN JFD CHECKED D. VASQUEZ REVIEWED RHA	**SAN DIEGO UNIFIED PORT DISTRICT** TIDELAND USE AND OCCUPANCY PERMIT WITHIN CORPORATE LIMITS OF SAN DIEGO **SAN DIEGO SYMPHONY ORCHESTRA ASSOCIATION**	DATE MAY 2, 2016 SCALE NO SCALE REF. FIELD SURVEY DRAWING NO. SHEET 1 OF 3 019-008

DEVSERV\REMI\E019\019-008\019-008_050216.DWG

65084 28



NOTE:
1. PERMIT AREAS SHOWN SHADED.

DRAWN JFD CHECKED D. VASQUEZ REVIEWED RHA	**SAN DIEGO UNIFIED PORT DISTRICT** TIDELAND USE AND OCCUPANCY PERMIT WITHIN CORPORATE LIMITS OF SAN DIEGO **SAN DIEGO SYMPHONY ORCHESTRA ASSOCIATION**	DATE MAY 2, 2016 SCALE 1"=80' REF. DRAWING NO. SHEET 2 OF 3 019-008

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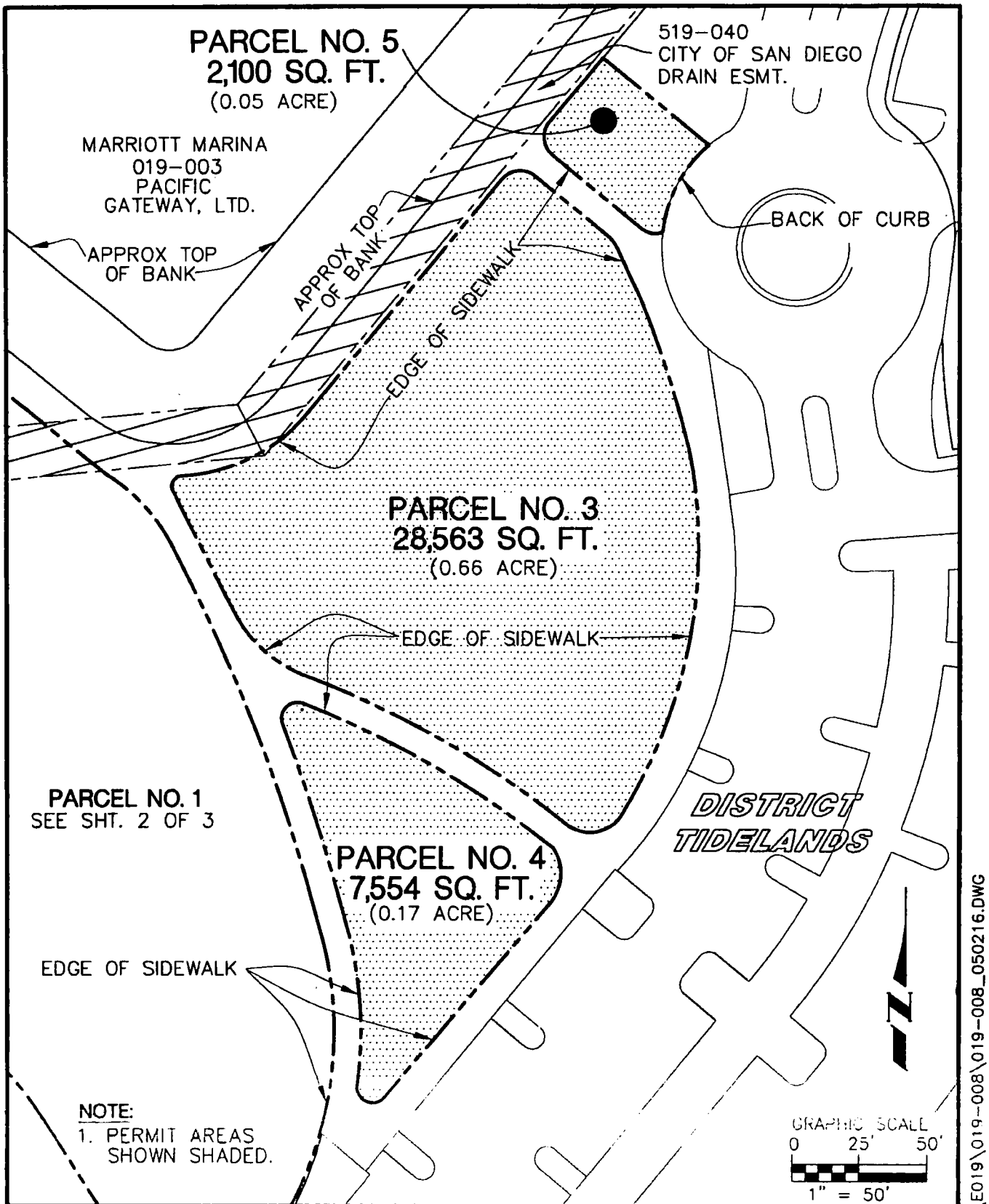
65084 29



NOTE:
1. PERMIT AREAS SHOWN SHADED.

DRAWN JFD CHECKED D. VASQUEZ REVIEWED RHA	**SAN DIEGO UNIFIED PORT DISTRICT** TIDELAND USE AND OCCUPANCY PERMIT WITHIN CORPORATE LIMITS OF SAN DIEGO **SAN DIEGO SYMPHONY ORCHESTRA ASSOCIATION**	DATE MAY 2, 2016 SCALE 1"=50' REF. DRAWING NO. SHEET 3 OF 3 019-008

DEVSERV\REMI\E019\019-008\019-008_050216.DWG

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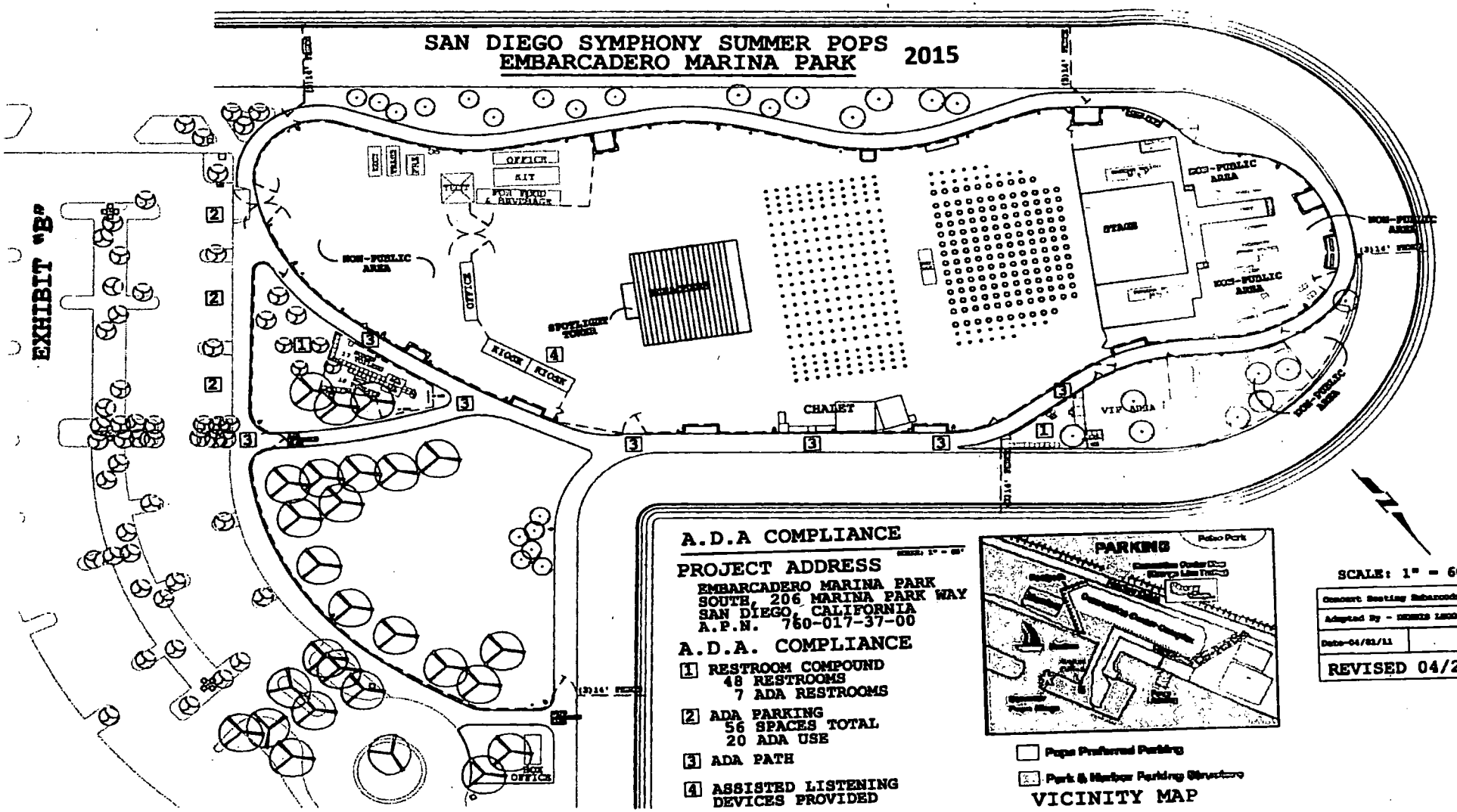
65084 31

EXHIBIT "B"

SAN DIEGO SYMPHONY SUMMER POPS
EMBARCADERO MARINA PARK 2015



A.D.A COMPLIANCE

SCALE: 1" = 60'

PROJECT ADDRESS

EMBARCADERO MARINA PARK
SOUTH, 206 MARINA PARK WAY
SAN DIEGO, CALIFORNIA
A.P.N. 760-017-37-00

A.D.A. COMPLIANCE

1. RESTROOM COMPOUND
   48 RESTROOMS
   7 ADA RESTROOMS
2. ADA PARKING
   56 SPACES TOTAL
   20 ADA USE
3. ADA PATH
4. ASSISTED LISTENING DEVICES PROVIDED

VICINITY MAP

Concert Seating Embarcadero Ma	
Adapted By - DENNIS LEGG	
Date-04/01/11	
REVISED 04/22/1	

Exhibit "C"

SDUPD Geographic Information Systems (GIS)

Document Path: \\VSGOTHA\Departmental\Information Services\Internal\ExhibitRequests\20160504SouthEmbParking\ReservedParkingSpots.mxd
Date Saved: 5/12/2016 2:05:23 PM

(2)

San Diego Unified Port District
Document No. 54579
Filed MAR 05 2009
Office of the District Clerk

BPC Policy No. 713

SUBJECT: TENANT LANDSCAPING IMPROVEMENTS AND MAINTENANCE

PURPOSE: To Establish and Maintain Standards for Tenant Landscaping Improvements and Maintenance

POLICY STATEMENT:

1. It is the policy of the District to foster and encourage excellence in landscape design, harmonious colors and materials, good proportional relationships and to render such assistance as is feasible in the planting of trees and other landscape features.

2. Lessees shall install and maintain required landscaping whenever the following development occurs:

   a. Development of vacant property or construction of new buildings on existing developed property.

   b. Addition to existing buildings or property.

   c. Expansion of an existing use.

   d. Change of use.

3. The following projects are exempt from the above requirements:

   a. Minor projects costing less than $50,000.00.

   b. Repairs to existing buildings.

   c. Projects where the existing landscaping is sufficient to meet the intent of this policy, as determined by the Executive Director.

4. The submission of landscape plans for review and approval is required. Landscape plans shall indicate adequate consideration for landscape grading, drainage, irrigation, paving, lighting, soil preparation and planting.

5. Landscape plans approved shall be strictly adhered to in the initial development and in the renewal or replacement of site features and plant materials. Landscaping and the required irrigation system shall be installed prior to the use of leased premises.

6. All planted areas shall be watered, fertilized and otherwise cultivated in accordance with generally accepted horticulture practice to maintain a healthy, growing condition for all trees, shrubs, and ground cover plants. Planted areas shall be maintained so as to be free of weeds, dead materials, and accumulated litter, rubble or other foreign substances. All plants shall be periodically inspected for infestation of disease or insects and immediately treated if an infestation is present.

7. The Executive Director shall be responsible for administering landscape policy. All landscaping shall be installed and maintained in accordance with this policy, the guidelines and standards as set forth in Appendix "A", and the determinations and interpretations made by the Executive Director.

RESOLUTION NUMBER AND DATE: 2009-32, dated February 3, 2009 (Supersedes BPC Policy 713, Resolution 84-107, dated March 27, 1984; and Resolution 68-298, dated December 3, 1968)
Note: Appendix "A" is documented as #16882

(1)

REFERENCE
COPY
54579

Re Amendment of BPC Policy 713,]
]
Tenant Landscaping Improvements]
]
and Maintenance . . . . .]
]

RESOLUTION 2009-32

BE IT RESOLVED by the Board of Port Commissioners of the San Diego Unified Port District, as follows:

That Board of Port Commissioners Policy No. 713, Tenant Landscaping Improvements and Maintenance, as amended, a copy of which is on file in the office of the District Clerk, is hereby adopted.

ADOPTED this 3rd day of February, 2009.

sw
2/3/09

San Diego Unified Port District
Document No. 16882
Filed MAR 29 1984
Microfilm No.
Office of the Clerk

Cross-reference Doc.#16881

48

Appendix "A" to BPC Policy No. 713

LANDSCAPE DEVELOPMENT MANUAL

Guidelines and Standards for Landscape Improvement and Maintenance

San Diego Unified Port District
Planning Department
March 1984

INTRODUCTION

Underlying the goals in the Port Master Plan is the Port District's concern for tideland improvement. THE PORT DISTRICT WILL ENHANCE AND MAINTAIN THE BAY AND TIDELANDS AS AN ATTRACTIVE PHYSICAL AND BIOLOGICAL ENTITY.[1] As part of that concern, the Master Plan places specific emphasis on facility design.

"...designed to best facilitate its particular function..."[1] (Construction)

"...a unifying design theme enhancing the overall aesthetical qualities of the site..." [2] (Commercial Uses)

"...designed to meet performance standards adequate to avoid nuisances..."[3] (Industrial Uses)

"...designed so that the architectural theme is in harmony with the design theme of the Planning District."[4] (Public Facilities)

The emphasis on design as a Port District concern arises from the tidelands' dynamic state and continually changing visual appearance. This manual will define the landscape criteria through which the landscape development policy is carried out. The manual will more specifically address those landscape "guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment..."[5]

[1] San Diego Unified Port District Port Master Plan, January 1980; p. 13
[2] Ibid., p. 22
[3] Ibid., p. 31
[4] Ibid., p. 43
[5] Ibid., p. 14

16882

IMPROVEMENTS AND MAINTENANCE ADMINISTRATION

The Port Director is responsible for administering the landscape development policy for proposed landscape improvements and the maintenance of established landscape developments. The proposed improvements are handled through the evaluation of plans and specifications submitted for proposed landscape developments. Maintenance standards are applied through a field evaluation program that assures conformance to approved plans and a level of maintenance consistent with the Port District's policy objectives.

The plan and specification evaluation is an administrative approval process in which the submitted plans and specifications are reviewed under the standards and guidelines detailed in this manual.

The field evaluation of a site's landscape maintenance is a continual process. Plant material requires this surveillance because of its growing state and continual dependence on life support elements.

In all cases the proposed and installed landscape improvements should be consistent with the Port District landscape development policy, the guidelines and standards detailed in this landscape development manual, and the determinations and interpretations made by the Port Director.

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FUNCTIONAL PURPOSE

Plant materials have more than a cosmetic and character setting effect on the environment; they also serve some very functional purposes.

VISUAL CONTROL. When combined in a balanced design these effects can contribute toward a visually functional development.

Foundation plantings emphasize, coordinate and complement architectural, service and sign structures within a site.

Specimen plants provide unique growth or flowering habits that heighten interest on the site. Plant stock used for this purpose is usually specified in larger sizes for a mature effect.

Accent plant material directs attention toward architectural and site features that are intended for viewer interest such as entrances, fountains and signs.

Outline and row plantings delineate perimeters and direct viewers' line of sight to specific areas.

Group arrangement of plant material defines focal points on and off the site and enhances viewer interest within the site by softening structural lines and bulk.

Screen plantings visually obscure scenes, corners, boundaries and structures that present an adverse impression.

Surface Cover plants are used to provide a uniform, low profile, vegetative cover such as vines, ground cover, water lilies and grass.

Overstory plant material contributes shade and psychological enclosure with above eye level foliage.

EROSION CONTROL. Plant material effectively controls wind and water erosion. Plants are a vegetative cover that shield the soil from erosive

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effects. Planting also mitigates siltation and air-borne dust when erosion has taken place.

Water erosion control is provided by -

- absorbing the energy of falling rain on foliage,
- holding soil particles in place among their roots,
- maintaining absorptive capacity of soil through root action,
- slowing the velocity of runoff,
- filtering and catching siltation as water travels across vegetative cover.

Wind erosion control is accomplished by -

- absorbing wind velocity,
- directing winds to areas not subject to erosion,
- filtering and collecting air-borne dust on foliage.

CLIMATE CONTROL. Temperature and humidity are moderated by overstory vegetation. During the day the sun's rays are filtered and shade keeps the temperature lower than at tree top level. During the night when the temperature drops, the foliage cover holds the ground heat. The humidity is retained under vegetative cover because of the sun and wind protection that the foliage provides.

Plants also reduce secondary radiation (glare) from reflective surfaces, such as pavement, glass, metals and water. THis effect not only reduces the temperature by absorbing heat, but it psychologically cools the area in visual appearance.

The many useful facets of plants are well documented in the publication Plants/People/and Environmental Quality, National Park Service U.S.D.I. and the American Society of Landscape Architects, 1972.

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GUIDELINES AND STANDARDS

I. LANDSCAPE PLANS AND SPECIFICATIONS

A. Plans Required

Plans and specifications for initial development or improvements shall cover the following landscape development sections.

- General Site Development
- Grading and Drainage
- Plant Material
- Irrigation System
- Site Furnishings

Separate plan sheets are not required for each section, but all information should be clearly presented. The plans shall have basic information relating to the site.

B. General Requirements

Landscape development plans, including irrigation plans, shall be prepared by a registered landscape architect. Plans shall include the name, address, telephone number, registration number, and signature of the landscape architect.

C. Planting Plans

Planting plans shall show the following:

1. The entire property under consideration, topography and drainage, existing and proposed man-made features, and existing and proposed landscape features.
2. Plants must be listed by their common and botanical names. Specify the number, size, type, and spacing of all plants.

D. Irrigation Plans

Irrigation plans shall show the following:

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1. The type, size, and location of all pipes, meters, control valves, automatic controllers, irrigation heads, backflow devices, vacuum breakers, and other irrigation features.
2. Point of connection to water source.
3. Static water pressure available at the meter.

E. Other Plans

Other plans may be submitted as needed. These may include paving, architectural furniture, outdoor lighting, signs, or other features relating to landscape design.

II. GENERAL DESIGN CRITERIA

A. The minimum percentage of total land area to be landscaped by the lessee shall be at least ten percent (10%) for industrial uses and fifteen percent (15%) for commercial uses.

B. The lessee shall landscape and maintain public areas adjacent to the demised or leased premises (i.e., area between the leasehold and roadway or walkways).

C. All parking areas containing five or more parking spaces shall be landscaped according to these standards. Landscaping shall include methods to screen the parking lot from the public right-of-way and from adjoining properties. Protective concrete curbs or wheel stops shall be installed where appropriate to protect plants and the irrigation system from vehicular damage.

D. The soil in all areas requiring landscaping shall be topsoil properly graded, amended and tilled to provide a medium suitable for the growth of ornamental plants. Earthen mounds shall have a slope no steeper than 2:1. All planted areas shall be fertilized with a complete commercial fertilizer containing nitrogen, phosphate, and potassium.

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E. All trees, shrubs and plants shall be in good condition in accordance with the standards of the American Association of Nurserymen, Inc., adopted in the American Standard for Nursery Stock. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous, and free of insect infestations, plant diseases, and objectionable disfigurements. All plants shall have normally well-developed branch systems and vigorous and fibrous root systems which are not root bound or pot bound. All plants shall be adaptable to the climatic conditions of the area in which they are planted.

F. Landscaped areas may include such inert materials as rock groupings, sculptures, decorative paving and gravel areas, interspersed with planting areas. The area developed with such features shall not exceed twenty-five percent (25%) of the required landscape area.

G. The protection and/or relocation of existing desirable trees and other plant materials shall be clearly noted on the plans.

H. The areas along building perimeters facing a public street or water right-of-way shall be landscaped.

I. All landscape areas ten square feet or greater shall have a permanently installed automatic underground watering system. Singular areas ten square feet or less, planters, pots, and hanging baskets shall be served by a hose bibb not greater than 50 feet distant.

J. Service areas such as trash receptacles, refuse storage and loading docks in view from public street or water right-of-way shall be screened with fences and/or plant material.

K. Soil erosion and siltation control. Site grading and excavation work exposes soil to potential erosion and possible siltation of waterways. The

following principles of control shall be adhered to when developing the control plan.

1. Keep disturbed soil areas to a minimum.
2. Stabilize and protect the disturbed soil areas as soon as possible.
3. Keep storm water runoff velocities low.
4. Protect disturbed soil areas from storm water runoff.
5. Retain sediment within the site area.
6. Ground water runoff of storm and irrigation water shall be directed off the site only through the storm drainage system.
7. Grade Change Restrictions:

Percent Grade	Restriction
65% (1.5:1)	Maximum cut slope
50% (2:1)	Maximum fill slope
30% (3:1)	Maximum for plant material cover
20% (5:1)	Maximum lawn slope
1% (100:1)	Minimum landscape slope

8. Asphaltic concrete shall not be used as part of the landscape development, and shall not be used in patio areas. Paving shall serve as a connecting, unifying element throughout the development. Paving materials shall complement the pavers used in public spaces and also relate to the materials used in the walls of adjacent structures. The use of several different pavement materials within relatively close areas is discouraged.

III. SOIL PREPARATION

A soil preparation specification shall be included stating the existing soil conditions and the measures necessary to amend the soil composition.

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IV. SHRUBS, VINES AND GROUND COVER

A. In large landscaped areas, a minimum of three varieties of ground cover shall be selected as a basic planting. Ground cover shall be healthy, densely foliated, and well rooted cuttings, or one-gallon container plants. Herbaceous ground covers shall be planted no more than 18 inches on center and prostrate shrubs shall be planted three feet on center.

B. A minimum of twenty-five percent (25%) of the total planting area shall be in shrubs. Twenty-five percent (25%) of the shrubs shall be flowering varieties. Flowering plant materials may be designated as accent elements in the public areas of commercial developments.

C. All shrubs shall not be smaller than those usually sold in five-gallon containers and shall have body and fullness that is typical of the species.

D. All chain link fencing that may be allowed shall have vines, shrubs, or trees in espalier form, planted on or against them in sufficient quantities that when the plants mature, the fence will be completely covered.

E. Flowering vines shall be used for color and softening effect.

V. TREES

A. The minimum number of trees per 5,000 square feet of land is as follows:

	Number of Trees by Size*		
Land Use	Small	Medium	Large
Commercial	2	1	1
Industrial	1	1	1
Parking	0	1	2
Other	To be determined by the Port Director.		

*Tree size is based upon typical height at full growth. Small trees are under 30 feet high, medium trees are 30 to 50 feet, and large trees are 50 feet or more high. All trees and large shrubs shall have a minimum height of about five feet at the time of planting in order to produce, within a reasonable period of time, the effect for which the landscaping is designed. Minimum tree size shall be 15 gallon.

B. Retail shopping areas shall include a minimum of one specimen tree per 5,000 square feet of landscaped area. The specimen tree shall be a minimum size as normally sold in a 30-inch square box.

C. The spacing of trees and large shrubs shall be appropriate to the species used. Plant materials shall also be spaced so they do not interfere with lighting or restrict access to emergency apparatus such as fire hydrants, or access by emergency vehicles. Trees or large shrubs shall be set back from obstructions so that the center of the tree is the following distance from the obstruction:

25 feet from property corner at street intersection

10 feet from light standards

15 feet from fire hydrants

5 feet from edge of driveway

D. Consideration shall be given to the skyline effect of trees.

E. Trees in patios, plazas, and in proximity to buildings shall be selected for the sculptural qualities of their form. The sculptural form of trees shall be emphasized through supervised pruning.

F. The lessee may select varieties from among trees contained in the plant materials list which follows. Trees equal in design aspects to those listed may be planted, provided prior written approval of the Port Director has been obtained.

G. A minimum of thirty percent (30%) of the trees planted shall be flowering varieties.

H. Tree wells in paved parking areas shall be a minimum of 12 square feet in area and shall be curb-lined or otherwise protected from vehicular traffic. Continuous planters within parking areas shall be of 10 foot minimum width and shall be curb-lined. Wheel stops shall be provided so that

vehicles do not overhang the planted areas. When planted, all trees shall be surrounded with an irrigation basin a minimum of two feet in diameter and a minimum of six inches deep.

I. Trees shall be adequately supported using metal stakes or guy wires. Such supports shall be so designed that they protect trees from injury. Trees shall be fastened to the supports with acceptable commercial tree ties of plastic or hose-covered wire.

J. Street trees planted by lessees in public areas adjacent to the demised or leased premises shall be as approved by the Port Director.

VI. MAINTENANCE

A. All plant growth in landscaped areas shall be controlled by pruning, trimming, or other measures so that plant material will not interfere with the installation, maintenance and repair of any public utility, will not restrict pedestrian or vehicular access, and will not constitute a traffic hazard. Dead or broken branches and suckers shall be removed. Branches rubbing together or against structures shall be properly cabled or removed. Plant material with weak crotches, multiple stems, double leaders or limb splits shall also be properly cabled and/or braced.

B. The sculptural character of the trees and shrubs shall be emphasized through supervised pruning.

C. All planted areas shall be watered sufficiently to promote vigorous growth of all trees, shrubs, and ground cover plants. Planted areas shall be maintained in a weed-free and litter-free condition. All plantings shall be periodically pruned, trimmed, edged, and fertilized in accordance with generally accepted horticultural practices.

PLANT PALETTE

SAN DIEGO UNIFIED PORT DISTRICT

16882

FOREWORD

This plant listing (480) was compiled from the sources listed in the bibliography. The notations are prepared by the Port's Maintenance Department and reflect their experience with plant material along the Bayfront. The Bayfront zones reflect the following recommendations:

Zone A	Tolerates heavy wind exposure, salt spray and salt in soil.
Zone B	Protection from salt spray needed; considerable salt in soil and air.
Zone C	Tolerates wind and moderate soil salt, but no salt spray; prefers light, well drained soil.

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TREES (198)

Botanical Name	Common Name	Notation	Bayfront Zone
ACACIA (Species)	Mimosa		C
aneura	Mulga		
baileyana	Bailey Acacia		
cyclops	Cyclops Acacia		
longifolia	Sydney Golden Wattle	limited life span	
melanoxylon	Blackwood Acacia	lots of space	B
pendula	Weeping Myal		
podalyriaefolia	Pearl Acacia		
pruinosa			B
pycnantha	Golden Wattle		A
verticillata	Star/Whorl-Leaf Acacia		
ACER rubrum	Scarlet Maple, Red Maple		B
ACMENA smithii	Lilli-Pilli		
ACROCARPUS fraxinifolius	Pink Cedar		
AGONIS flexuosa	Willow Myrtle/Peppermint Tree		
ALBIZZIA julibrissin	Silk Tree	frequent pruning, litter	
lophantha	Plume Albizia		B
ALNUS rhombifolia	White Alder		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
ARAUCARIA (Species)			B
augustifolia	Parana Pine		
bidwillii	Bunya-Bunya		
ARBUTUS unedo	Strawberry Tree		
ARCHONTOPHOENIX cunninghamiana	King Palm	good tree	
ARECASTRUM romanzoffianum	Queen Palm	does get fusarium	
BAUHINIA (Species)	Orchid Tree		
blakeana	Orchid Tree	frequent pruning, litter	
variegata candida	White Orchid Tree		
BEAUCARNEA recurvata	Elephant-Foot Tree		
BRACHYCHITON acerfolium	Flame Tree	litter	
populneum	Bottle Tree		
BRASSAIA actinophylla shcefflera	Queensland Umbrella Tree	protected, red spider	
BUTIA capitata	Pindo/Jelly Palm	good	
CAESALPINIA echinata	Brazilwood		
CALLISTEMON vinimalis	Bottlebrush		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
CALODENDRUM capense	Cape Chestnut	litter, surface roots, long-lived	
CARICA papaya	Papaya		
CASIMIROA edulis	White Sapote		
CASUARINA (Species)			B
equisetifolia	Horsetail Beefwood		A
stricta	Coast Beefwood, She-Oak		
CEANOTHUS arboreus glabrous form	Island Lilac		
CEDRUS deodora	Deodar Cedar	good, large tree if not controlled	
libani	Cedar of Lebanon		
CERATONIA siliqua	Carob/St. John's Bread	root problem, male tree only	C
CHAMAECYPARIS (Varieties)	False Cypress		B
CHAMAEROPS humilis	Mediterranean Fan Palm	good	
CHIRANTHODENDRON platandides	Mexican Hand Tree		
CHORISIA speciosa	Floss Silk Tree		
COCCOLOBIS uvifera	Seaside Grape		A
COFFEA arabica	Arabian Coffee Tree		
CORDYLINE australis	Green Dracena, Ti Tree		
stricta	Australian Dracena		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
CUPANIOPSIS anacardiquides	Carrotwood	good	
CUPRESSUS (Species)	Cypress		C
arizonica	Arizona Cypress		
macrocarpa	Monterey Cypress		A
CYCAS revoluta	Sago Palm	scale, good care required, decorative, expensive, slow growing	
DOMBEYA wallichii	Pinkball		
DRACENA australis			A
draco	Dragon		
DURANTA repens	Golden Dewdrop		
ERIOBOTRYA japonica	Loquat		
ERYTHEA armata	Mexican Blue Palm		
edulis	Guadalupe Palm		B
ERYTHRINA caffra	Coral Tree	red spider, no lawns, brittle	
coralloides	Mexican Coral		
EUCALYPTUS (Species)	Gum Tree, Ironbark Tree		B
calophylla	Port Gregory/Marri Gum		

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TREES (continued)

	Botanical Name	Common Name	Notation	Bayfront Zone
EUCALYPTUS	citriodora	Lemon-Scented Gum	Good	
	cladocalyx	Sugar Gum		
	cornuta	Yate Tree		
	crebra	Narrow-Leaf Ironbark		
	ficifolia	Red Flowering/Flame Gum	no lawns, brittle	
	globulus	Blue Gum		
	lehmannii	Lehman Gum		
	leucoxylon	White Ironbark		
	macrocapa 'rosea'	Large Fruited Red Flowering Gum	not good for irrigation	
	maculata	Spotted Gum		
	mortoniana	Morton's Gum		
	nicholii	Willow-Leafed	good	
	polyanthemos	Australian Beech/Red Box		
	punctata	Leather-Jacket		
	robusta	Swamp Mahogany		
	rostrata	Red Gum		
	rudis	Desert Gum		
	sideroxylon	Red Ironbark		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
EUCALYPTUS sideroxylon 'rosea'	Pink Flowered Ironbark	Good	
tereticornus	Gray Gum		
viminalis	Manna Gum		
EUGENIA jambos	Rose Apple		
paniculata australis	Australian Bush-Cherry		
EUPHORBIA tirucalli	Milk Bush		
FEIJOA sellowiana	Pineapple Guava	Good	
FICUS (Species)	Fig		B
benghalensis	Banyan Tree		
benjamina	Golden/Java Fig/Weeping Chinese Banyan	OK	
elastica	Rubber Tree		
microphylla	Moreton Bay Fig		
nekbudu	Zulu Fig		
retusa nitida	Indian Laurel Fig	large root system, Cuban thrip	
rubignosa	Rusty Leaf Fig	root control	
watkinsiana	Watkins Fig		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
FRAXINUS ubdei	Evergreen Ash	large 40 ft.	
velutina	Arizona Ash		C
GINKGO biloba	Ginkgo/Maidenhair Tree		
GREVILLEA robusta	Silk Oak		
HAKEA suaveolens	Needle Bush/Sweet Hakea		
HARPEPHYLLUM caffrum	Kafir Plum		
HOWEA forsteriana	Paradise Palm	tender, mite, not good outside	
HYMENOSPORUM flavum	Sweetshade		
JACARANDA acutifolia	Jacaranda	messy, good	
JUNIPERUS chinensis torulosa	Hollywood/Twisted Juniper		
lacayana			A
KIGELIA pinnata	Sausage Tree		
KOELREUTERIA bipinnata	Chinese Lantern Tree		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
LAGUNARIA patersonii	Pyramid Tree		B
LEPTOSPERMUM laevigatum	Coast Tea Tree		
LIBOCEDRUS decurrens	Incense Cedar		
LIQUIDAMBAR styraciflua	Sweet Gum		B
LIVISTONA australis	Australian Fountain Palm		
LYONOTHAMNUS floribundus, asplenifolius	Catalina Ironwood		B
MACADAMIA ternifolia	Macadamia/Queensland Nut		
MAGNOLIA grandiflora	Southern Magnolia	good, prune to prevent breakage	C
MAYTENUS boaria	Mayten Tree		B
MELALEUCA armillaris	Honey Myrtle		
leucadendron	Cajeput Tree	good	
nesophila	Tea Myrtle/Pink Melaleuca		
styphelidides	Prickly Paper Bark		
METASEQUOIA glyptostroboides	Dawn Redwood		
METROCIDEROS excelsa	New Zealand Christmas Tree	good	A
MUSA sapientum	Banana		
MYOPORUM laetum	Guitarwood		

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
OLEA europaea	Olive		C
PARKINSONIA aculeata	Palo Verde/Jerusalem Thorn		
PAUROTIS wrightii	Saw-Cabbage/Everglade Palm		
PHOENIX (Species)	Date Palm		B
canariensis	Canary Island Date Palm		A
dactylifera	Date Palm		
reflinata	Senegal Date Palm	subject to fungus	
roebelinii	Pygmy Date Palm	good	
PHOTINIA arbutifolia	Toyon/Christmas Berry		
PINUS canariensis	Canary Island Palm	good, no more plantings	
coulteri	Coulter Pine		
halepensis	Aleppo Pine		
mugho	Mugho/Swiss Mountain Pine		
pinaster	Maritime Pine	frequent spraying	
pinea	Italian Stone Pine		
radiata	Monterey Pine		
sabiniana	Digger Pine		
torreyana	Torrey Pine		B

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
PITTOSPORUM phillyraeoides	Willow/Narrow Leaf Pittosporum		
rhombifolium	Queensland Pittosporum		B
tobira	Japanese Pittosporum		
undulatum	Orange Pittosporum/Victorian Box		B
viridiflorum	Cape Pittosporum		
PLATANUS acerfolia	London Plane Tree	red spider, anthracnose	
racemosa	California/Western Sycamore	too large	
PLUMARIA emarginata			C
PODOCARPUS elongata	South African Fern Pine		
gracilior	East African Fern Pine	good	
macrophylla	Japanese Yew Pine		
POPULUS alba	White Poplar		A
fremontii	Fremont Cottonwood		
nigra 'italica'	Lombardy Poplar	good	
PRUNUS cerasiferra pissardi	Purple-Leaf Plum		
lyonii	Catalina Cherry		
PYRUS kawakami	Evergreen Pear	pear blight	

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
QUERCUS agrifolia	Coast Live Oak		B
ilex	Holly Oak		A
virginiana	Southern Live Oak		B
QUILLAJA saponaria	Soapbark Tree		
RHUS laurina	Laurel Sumac		
ROYSTONEA regia			B
SABAL palmetto	Cabbage Palm		A
SCHINUS molle	California Pepper Tree		C
terebinthifolius	Brazilian Pepper Tree		B
SEQUOIA sempervirens	Coast Redwood		
dendron giganteum	Giant Sequoia		
SINOCALAMUS oldhamii	Giant Bamboo		
SPATHODEA campanulata	African Fountain Tree		
STRELITZIA nicolai	Giant Bird of Paradise		
TABEBUIA chrisotricha	Golden Trumpet Tree	litter	

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TREES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
TAXODIUM mucronatum	Montezuma Cypress		
TETRAPANAX papyriferum	Ricepaper Plant		
THESPESIA populnea			A
THUJA orientalis	Oriental Arborvitae		C
TRACHYCARPUS fortunei	Windmill Palm	ok	
TRISTANIA conferta	Brisbane Box	good, prune to prevent breaking	
ULMUS hollandica	Dutch Elm		
parvifolia	Chinese Elm	caterpillars	C
pumila	Siberian Elm		
UMBELLULARIA californica	California Laurel		C
VIBURNUM japonica	Japanese Viburnum		
WASHINGTONIA robusta	Mexican Fan Palm	possible fungus	A
YUCCA brevifolia	Joshua Tree		
elephantipes	Guatemala Yucca		

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SHRUBS (128)

Botanical Name	Common Name	Notation	Bayfront Zone
ABELIA (Species)			C
grandiflora	Glossy Abelia	good	B
ABERIA cafra			B
ACACIA (Species)	Mimosa		B
armata	Kangaroo Thorn		A
cyclops			A
verticulata			A
ACOKANTHERA spectabilis	African Wintersweet		B
ALSOPHILA cooperi	Australian Tree Fern	good, shade only	
ANTHYLLIS barba-jovis			A
ARBUTUS unedo	Strawberry Tree		C
ASPARAGUS sprengeri	Sprenger Fern	good, do not plant under shrub	
ATRIPLEX breweri	Brewer Saltbush		A
AUCUBA japonica	Japanese Aucuba		A
BACCHARIS (Species)			C
BAMBUSA multiplex	Bamboo	most bamboo spread too far and fast	
BERBERIS (Species)	Barberry		B

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
BUDDLEIA (Species	Butterfly Bush		C
CALCEOLARIA integrifolia	Golden Nugget/Russet		B
CALLIANDRA tweedii	Trinidad Flame Bush	good	
CALISTEMON (species)	Bottlebrush		B
CAMELLIA japonica			C
CARISSA grandiflora	Natal Plum		B
CEANOTHUS (Species)	Wild Lilac		C
verrucosus			B
CHAMAEROPS humilis	Mediterranean Fan Palm		B
CHOISYA ternata	Mexican Orange		C
CISTUS (Species)	Rockrose		B
CONVOLVULUS cneorum	Bush Morning Glory		B
COPROSMA baueri	Mirror Plant		A
CORONILLA glauca			C
COTONEASTER (Species)			C
CYTISUS (Species)	Broom		C
scoparius	Scotch Broom		B

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
DAPHNE odora	Winter Daphne		B
DODONAEA viscosa	Rock Willow		B
viscosa atropupurea	Purple Hop Bush	limited life	
DURANTA plumieri	Sky Flower		
stenostachya	Brazilian Sky Flower		
ECHIUM fastuosum	Pride of Madeira		A
ELAEAGNUS pungens	Silverberry		A
ERIOCEPHALUS africanus			B
ESCALLONIA (Species)			C
rosea			B
EUONYMUS japonicus	Evergreen Euonymus		A
FATSIA japonica	Japanese Aralia	shade, red spider	B
GENISTA monosperma	Bridal Veil Broom		B
GREVILLEA thelemanniana	Hummingbird Bush		B

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
HAKEA (Species)			B
HEBE (Species)			B
buxifolia	Boxleaf Hebe	good, particularly along coast	
HIBISCUS rosa-sinensis	Hibiscus	good	C
HYPERICUM (Species)	St. Johnswort		C
HYDRANGEO macrophylla	Bigleaf Hydrangea	good	
ILEX (Species)	Holly		B
ILLICIUM anisatum			C
IXORA chinensis			C
JUNIPERUS (Species)	Juniper		B
chinensis torulosa	Hollywood Juniper	mite on coast, no control	
conferta	Shore Juniper		A
pfitzeriana	Pfitzer Juniper		
LANTANA camara			C
LAVANDULA spica	Spike Lavender		A

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
LAVATERA assurgentiflora	Tree Mallow		A
LEPTOSPERMUM (Species)	Tea Tree		B
laevigatum	Austrian Tea Tree	good	
LIGUSTRUM (Species)	Privet		B
ovalifolium			A
LIMONIUM	Statice, Sea Lavender	good	
LINUM	Flax		
LIPPIA citriopora	Lemon Verbena		C
LONICERA nitida	Box Honeysuckle		A
LUPINUS arboreus	Lupine or Lupin		B
LYCIUM richi			A
MAGNOLIA stellata	Star Magnolia		C
MAHONIA (Species)			C
MELALEUCA (Species)			B
armillaris	Drooping Melaleuca		A
ericifolia	Heath Melaleuca		A
nesophila	Pink Melaleuca		A

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
MICHELIA fuscata	Banana Shrub		C
MONTERIA deliciosa	Split Leaf Philodendron	shade protected	
MUSA cavendishii	Banana	poor	
MYOPORUM laetum			A
MYRICA (Species)			B
NANDINA domestica	Heavenly Bamboo	good	
NERIUM oleander	Oleander	genrally good	
OSMANTHUS (Species)			C
PHILODENDRON selloum	Philodendron	shade protected	
PHLOMIS fruticosa	Jerusalem Sage		A
PHOTINIA fraseri		good	
PITTOSPORUM (Species)			C
crassifolium			A
tobira	Tobira	good	B
viridiflorum	Cape Pittosporum		B

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SHRUBS (continued)

Botanical Name	Common Name		Notation	Bayfront Zone
POLYGALA dalmaisiana	Sweet Pea Shrub			B
POINAIANA gilliesi	Bird of Paradise Bush			B
PRUNUS (Species)	Flowering Cherry			C
ilicifolia	Hollyleaf Cherry			B
integrifolia	Catalina Cherry			B
PSIDIUM cattleianum	Lemon and Strawberry Guavas			B
PYRACANTHA lalandi	Firethorn			C
RAPHIOLEPIS (Species)				B
indica	Indian Hawthorn	good		
umbellata	Yeddo Hawthorn	good		
ovata				A
RHUS (Species)	Sumac			B
ROSMARINUS officinalis	Rosemary			B
ROMNEYA coulteri	Matilija Poppy			B
RUSCUS aculeatus	Butcher's Broom			A
SENECIO cineraria	Dusty Miller	poor		

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
SEVERINIA buxifolia			B
SPARTUM junceum	Spanish Broom		B
STATICE perezi			A
TERNSTROEMIA gymnanthera		best as shade	
TEUCRIUM fruticans	Bush Germander		B
THEVETIA nereifolia	Yellow Oleander		C
TRACHELOSPERMUM jasminoides	Confederate Jasmine		
VIRUMNUM (Species)			C
carlesi	Korean Spice Viburnum		B
odoratissium	Sweet Viburnum	red spider	
suspensum	Sandankwa		
WEIGELA florida			C
WIGANDIA caracasana			B

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SHRUBS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
XYLOSMA congestum		good	
senticosa	Xylosma		
YUCCA (Species)			B

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GROUND COVERS (30)

Botanical Name	Common Name	Notation	Bayfront Zone
ACANTHUS mollis	Bear's Breech	semideciduous, red spider	
AGAPANTHUS africanus	Lily-of-the-Nile	ok, good	
AJUGA reptans	Carpet Bugle	requires shade, mow yearly, requires good drainage	
ALYSSUM		good, white and yellow the strongest	
ASPARAGUS sprengeri	Sprenger Fern	good, do not grow under shrub	
BEGONIA		good, select sun-tolerant	
BOUGAINVILLEA crown jewell	Bougainvillea	messy	
temple fire	Bougainvillea	messy	
CISSUS rhombifolia	Grape Ivy	good, invasive, some spider mite	
CLIVIA miniata	Kaffir Lily	shade	
COPROSMA	Kirk's Coprosma	good near coast	
COTTONEASTER		scale, red spider, blight	
DICHONDRA repens	Lawnleaf		

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GROUND COVERS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
GAZANIA		good, many types/colors, requires mowing every 2 years	
HEDERA	Ivy	good, mow/cut every 2 years, rat home, do not plant under shrubs	
helix hahnii	Needlepoint Ivy	ivy subject to salt burn, excellent protection for rats	
HEMEROCALLIS	Daylily	good, many types	
JUNIPERUS chinensis pfitzeriana	Pfitzer Juniter	mite coastal, no control now	
conferta (horizontal species)	Shore Juniper		
sabina tamariscifolia	Tam Juniper	mite coastal, no control now	
LANTANA montevidensis		good for rough/bank areas	
LIMONIUM perezii	Statice, Sea Lavender	good, hardy (except Chula Vista tidelands)	
MESEMBRYANTHEMUM (Species)	Ice Plant	no vulgaris pickle type	
MOREA	Fortnight Lily	good	

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GROUND COVERS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
OSTEOSPERMUM fruticosum	Trailing African Daisy	care in selection and fungus problem, requires yearly mowing	
PELARGONIUM peltatum	ivy geranium	good	
PYRACANTHA	Firethorn	low maintenance, subject to blight	
STRELITZIA reginae	Bird of Paradise	good, hardy	
TRACHELOSPERUM jasminoides	Star Jasmine	good, hardy	
VINCA minor	Periwinkle	partial shade, prune to control	

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VINES (34)

Botanical Name	Common Name	Notation	Bayfront Zone
ALLAMANDA cathartica			B
ANTIGONON leptopus	Queen's Wreath, Coral Vine		C
ASPARAGUS falcatus	Sickle-Thorn Asparagus		A
BIGNONIA (Species)	Trumpet Vine		B
BOUGAINVILLEA (Varieties)			B
BOUSSINGAULTIA baselloides	Madeira Vine		C
CISSUS (Species)	Kangaroo Vine		A, B
CLEMATIS indivisa			B
CLERODENORUM thompsonae	Bleeding Heart Glory Bower		B
DIOSCOREA batatas			B
DISTICTIS lactiflora	Vanilla Trumpet Vine		C
FATSHEDERA lizei	Variegata	shade, frequent spraying, red spider, mealybug	
FICUS pumila	Creeping Fig		B

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VINES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
GELSEMIUM sempervirens	Carolina Jasmine		C
HARDENBERGIA (Species)	Lilac Vine		C
HIBBERTIA scandens	Guinea Gold Vine	good, slow	
IPOMEDEA (Species)	Morning Glory		B
JASMINUM (Species)	Jasmine		C
humile	Italian Jasmine		B
KADSURA japonica	Scarlet Kadsura		B
KENNEDYA rubicunda			C
LATHYRUS littoralis	Sweet Pea		A
LYCIUM barbarum			A
MUEHLENBECKIA compleya	Mattress Vine, Wire Vine		A

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VINES (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
PASSIFLORA (Species)	Passion Vine		C
PHAEDRANTHUS buccinatorius	Blood-Red Trumpet Vine	good	
POLYGONUM aubertii	Silver Lace Vine		C
ROSA (Species)	Rose		C
laevigata			B
SULANUM wendlandi	Costa Rican Nightshade		C
STAUNTONIA coreacea			B
TECOMA capensis	Cape Honeysuckle		A
TRACHELOSPERMUM jasminoides	Star Jasmine		B
VITIS (Species)	Vine		C

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HERBACEOUS PLANTS (90)

Botanical Name	Common Name	Notation	Bayfront Zone
ABRONIA maritina	Verbena		A
umbrellata	Pink Sand Verbena		B
ACHILLEA (Species)	Yarrow		C
ALOE (Species)	Lily Family		A
ALYSSUM maritimum	Violet Queen/Minimum		A
ANAGALLIS linifolia	Pimpernel		C
ANCHUSA azurea	Loddon Royalist		C
ANEMONE japonica	Japanese Windflower		C
ANTIRRHINUM majus	Snapdragon		C
ARENARIA balearica	Corsican Sandwort		C
ARMERIA vulgaris?	Thrift, Sea Pink		A
ASPLENIUM maritimum	Fern		A
ATRIPLEX semibaccata	Australian Saltbush		A
AUBRIETA deltoidea	Common Aubrieta		B
BELLIS perennis	English Daisy		B
CALENDULA officinalis	Pot Marigold		B
CAMPANULA (Species)	Bellflower		C

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HERBACEOUS PLANTS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
CENTRANTHUS ruber	Jupiters Beard		B
CERASTIUM tomentosum	Snow-in-Summer		B
CERATOSTIGMA plumbaginoides	Dwarf Plumbago		A
CHRYSANTHEMUM maximum	Shasta Daisy		C
COREOPSIS lanceolata	Coreopsis		B
maritima	Sea Dahlia		A
DELPHINIUM ajacis	Larkspur		C
DIANTHUS (Species)			B
DIMORPHOTHECA (Species)	Cape Marigold, African Daisy		C
DUDLEYA pulverulenta			A
ECHEVERIA (Species)	Metallica		A
ERIGERON mucronatus	Fleabane		B
ERIOPHYLLUM caespitosum			A
ERYNGIUM amethystinum	Sea Holly		A
ERYSIMUM capitatum?	Blister Cress, Wallflower		A

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HERBACEOUS PLANTS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
GAILLARDIA aristata	Blanker Flower		C
GAZANIA (Species)			B
GEUM (Varieties)	Avens		C
GLAUCIUM flavum	Yellow Horned Poppy		A
GODETIA (Species)			C
GRIDELIA robusta			A
GYPSOPHILA (Species)	Baby's Breath		
HEDYCHIUM coronarium	White Ginger Lily		
HEDYSARUM coronarium			B
HEMEROCALLIS aurantiaca	Daylily		B
HEUCHERA sanguinea	Coral Bells		B
IBERIS (Species)	Candytuft		B
gibraltarica	Candytuft		A
IRIS germanica			B

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HERBACEOUS PLANTS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
KNIPHOFIA uvaria	Red Hot Poker, Torch-Lily, Poker Plant		C
LAVATARA olbia	Tree Mallow		B
LILIUM (Species	Lily		C
LIMNANTHES douglasi	Meadow Foam USA		C
LINUM (Species)	Flax		B
LIPPIA canescens			B
LIRIOPE spicata	Creeping Lily Turf		B
LUPINUS (Species)	Lupine		B
MALCOMIA maritima	Virginian Stock		B
MATHIOLA incana			C
MEDICAGO denticulata			A
MESEMBRYANTH aequilaterrale (Ice Plant)			A
crystallinum	Ice Plant		A
edule			A
floribumdum			A

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HERBACEOUS PLANTS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
NIGELLA damascena	Love-in-a-Mist		C
OPHIOPOGON (Species)	Lily Turf		B
PAPAVER (Species)	Poppy		C
PELARGONIUM (Species)	Geranium		B
PETUNIA hybrida	Common Garden Petunia		B
PHLOX drummondi	Annual Phlox		B
PHORMIUM tenay	New Zealand Flax		A
PORTULACA grandiflora	Portulaca, Rose Moss		B
SALVIA (Species)	Sage		B
SAXIFRAGA (Species)	Saxifrage		C
cordifolia			B
SCABIOSA (Species)	Pincushion Flower		C
caucasica	Perennial Pincushion Flower		B
SEDUM (Species)	Stonecrop		B
acre	Goldmoss Sedum		A

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HERBACEOUS PLANTS (continued)

Botanical Name	Common Name	Notation	Bayfront Zone
SEMPERVIVUM (Species)	Houseleek		A
SENECIO (Species)			B
cineraria	Dusty Miller		A
STATICE (Species)	Statice		A
STERNBERGIA lutea	Lilies of the Field		C
STOKESIA laevis	Stokes Aster		C
TAGETES (Species)	Marigold		C
THYMUS (Species)	Thyme		B
TITHONIA rotundifolia	Mexican Sunflower		C
VENIDIUM (Species)			C
VERONICA (Species)	Speedwell		B
VINCA major?	Periwinkle, Myrtle		B
VIOLA (Species)	Violet, Pansy		C
ZEPHYRANTHES (Species)	Zephyr Flower, Fairy Lily		C
ZOYSIA tenuifolia	Emerald Zoysia		B

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3. Ornamental Plants for Subtropical Regions, Roland Stewart Hoyt, Livingston Press, Los Angeles, CA, 1938.

4. Plant Recommendations, Port Maintenance Department, Jerry Wold, August 1983.

5. Trees of San Diego, A Pictorial Guide, Patricia Waldron, San Diego Science Foundation, San Diego, CA, 1966.

16882

Re Amendment of BPC Policy 713,]
]
Tenant Landscaping Improvements]
]
and Maintenance . . . . .]
]

RESOLUTION 84-107

BE IT RESOLVED by the Board of Port Commissioners of the San Diego Unified Port District, as follows:

That Board of Port Commissioners Policy No. 713, Tenant Landscaping Improvements and Maintenance, as amended, a copy of which is on file in the office of the District Clerk, is hereby adopted.

ADOPTED this 27th day of March, 1984.

Presented By: DON L. NAY, Port Director

By _____
ASSISTANT PORT DIRECTOR

Approved: JOSEPH D. PATELLO, Port Attorney

_____

SW
3/23/84

San Diego Symphony

Schematic Design Package

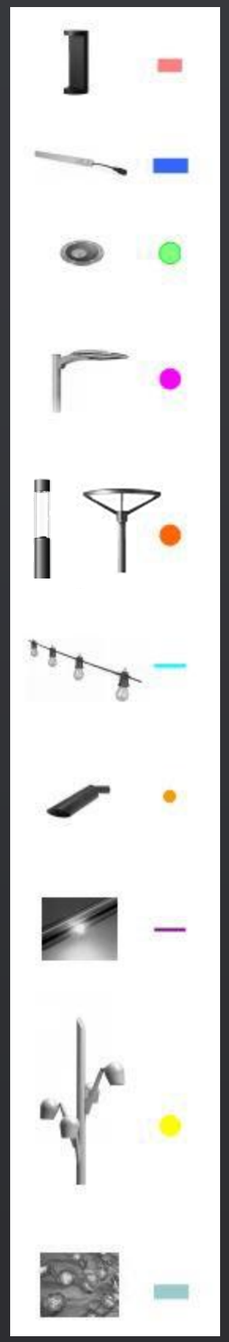
22 November 2016

The HLB Team

Teal Brogden, Senior Principal
Maura Reinhart, Senior Designer
Karen Park, Designer
Bahareh Hosseini, Designer

Overall Plan

Overall Plan



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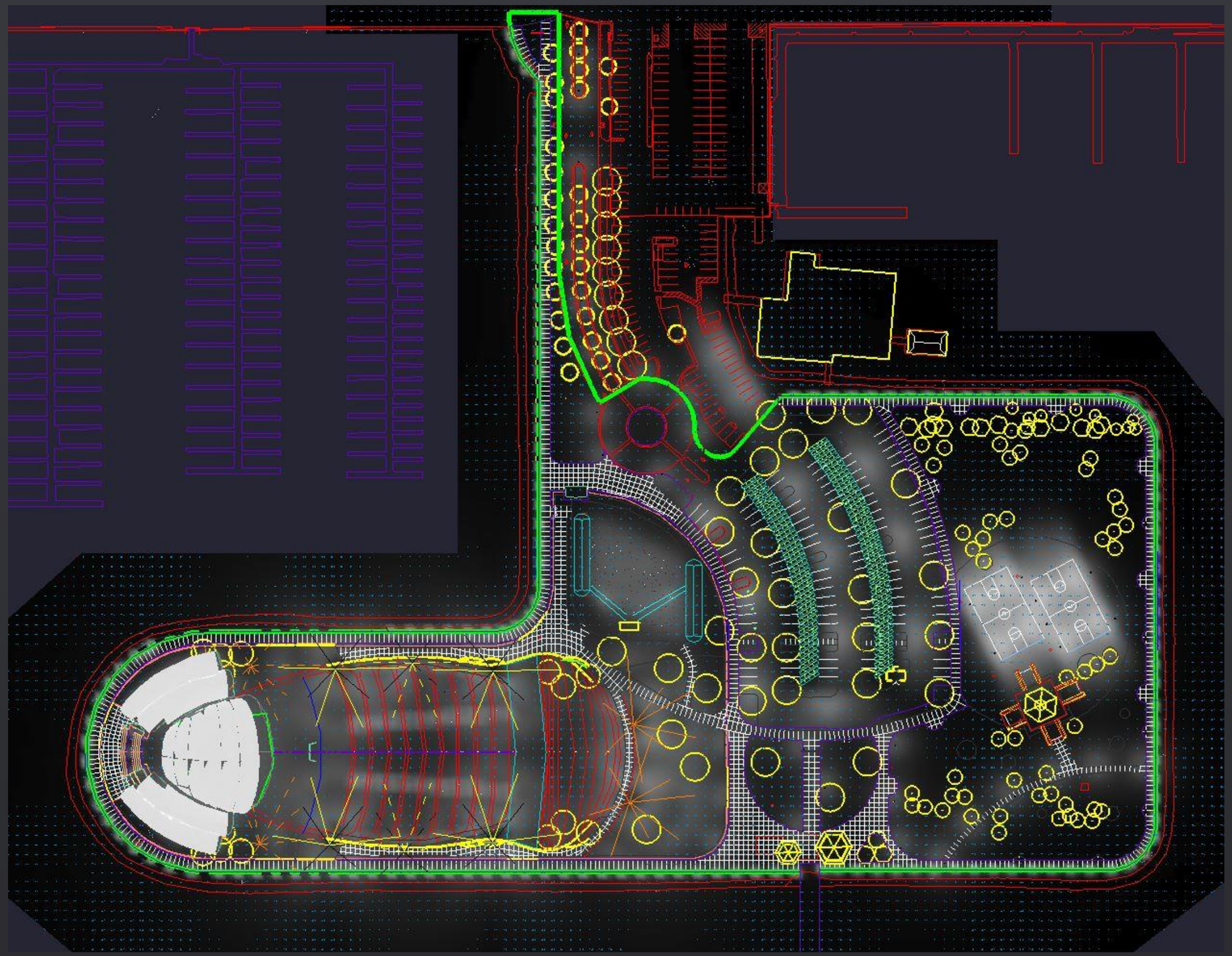

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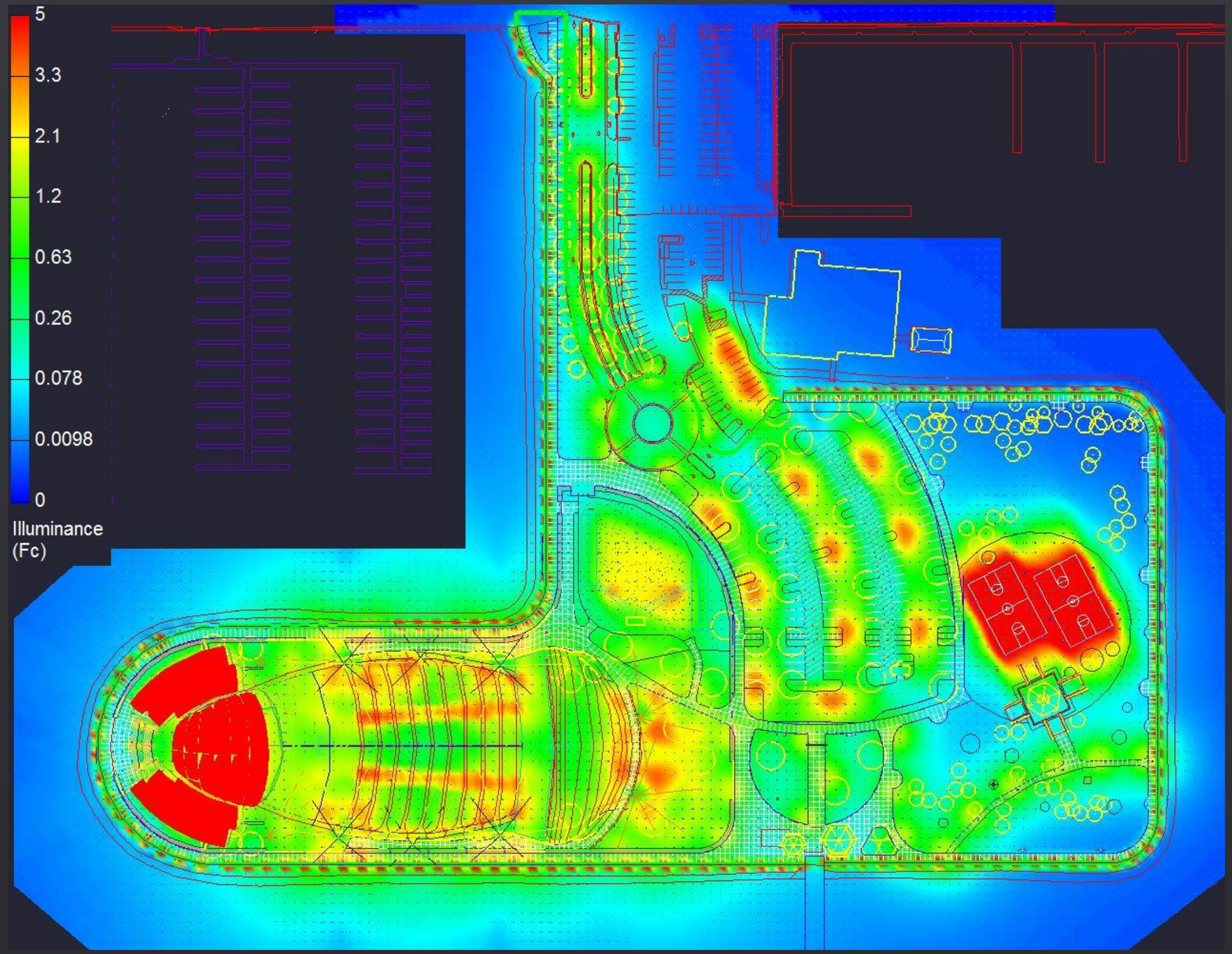
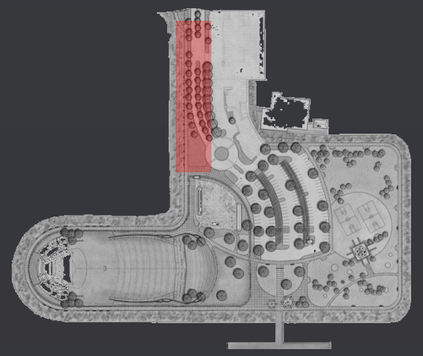
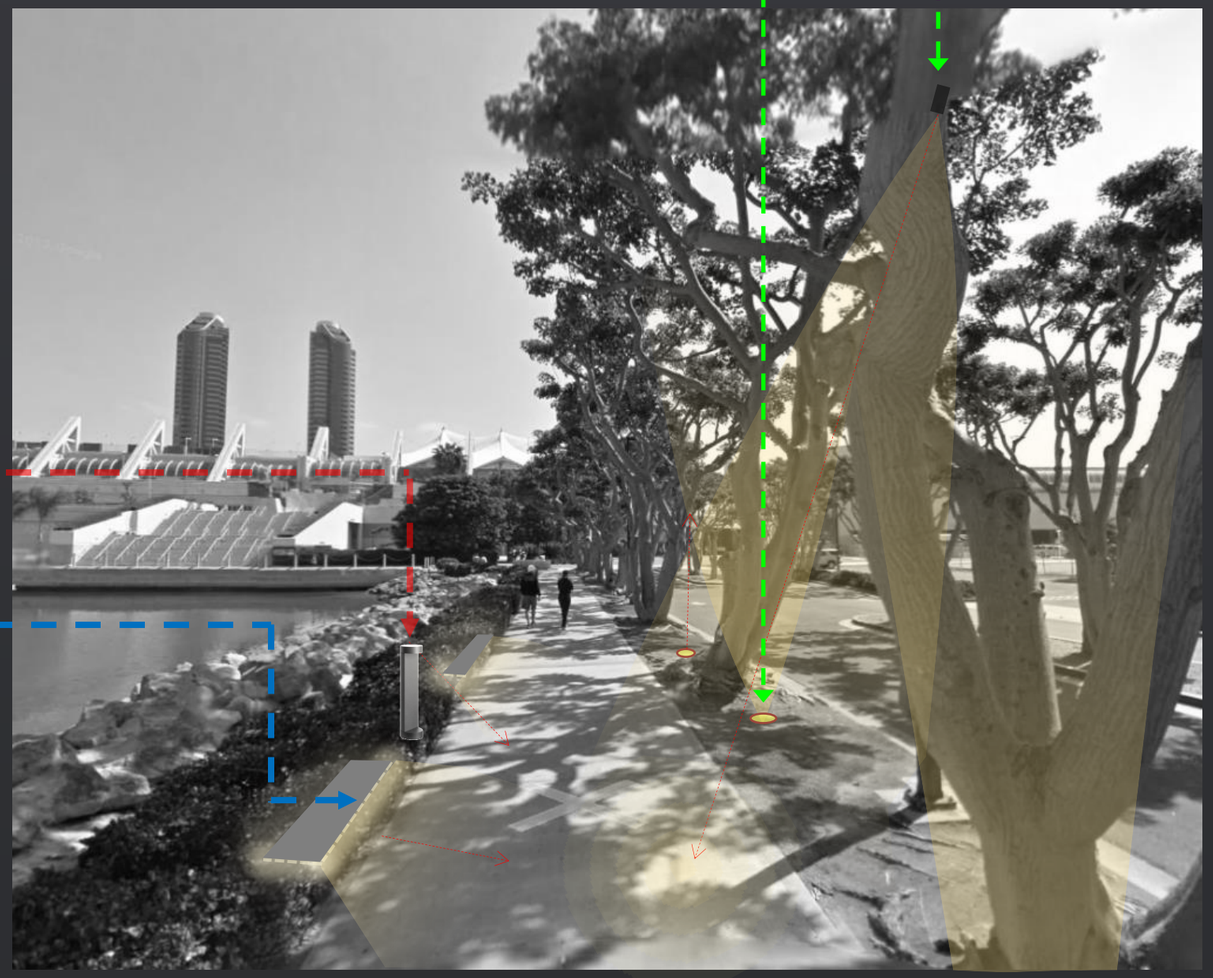


Promenade Lighting



Inground tree uplighting +
Tree mounted downlight



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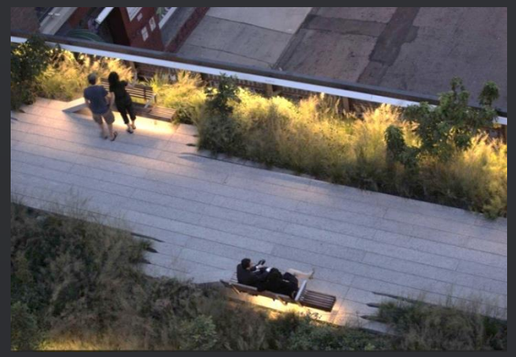
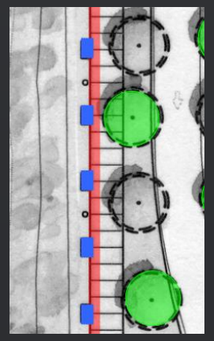
20 ft o.c.spacing

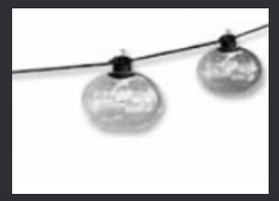


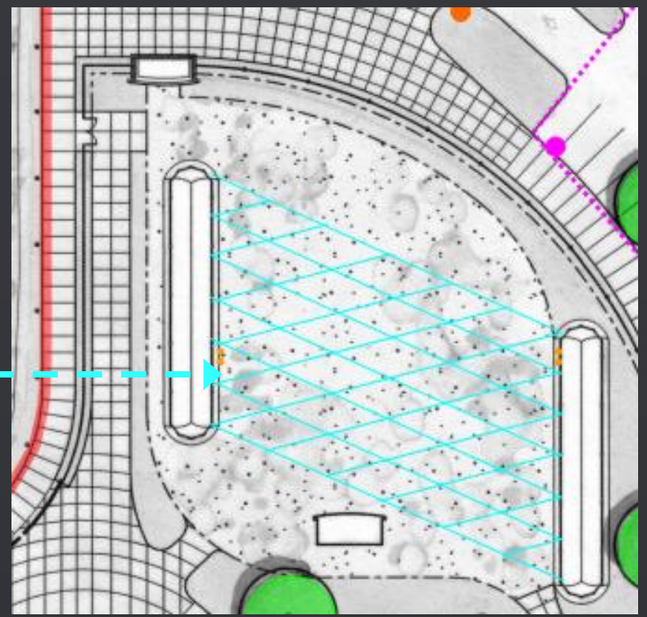
Bench integrated
LED tapelight

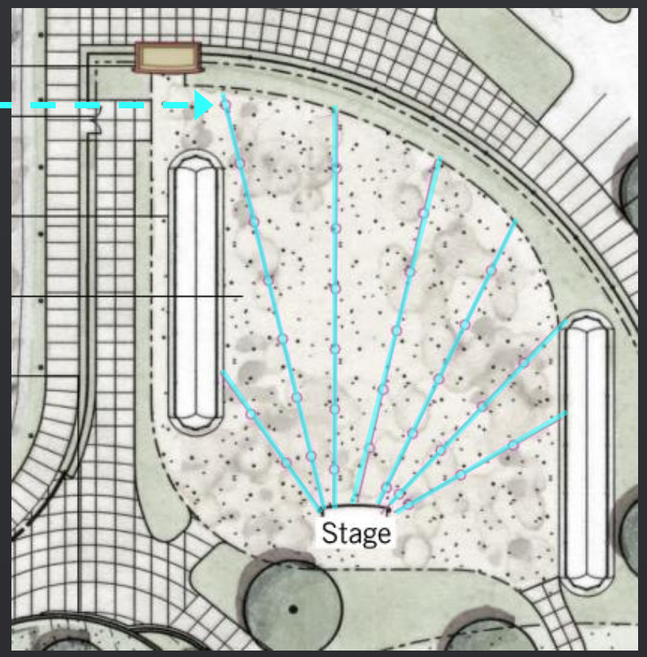


Dining area with Catenary lighting

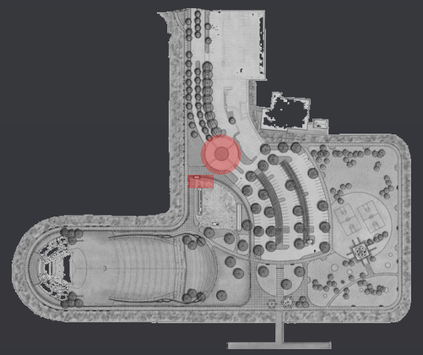
Low Level Bollard
20 ft o.c.spacing



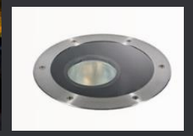




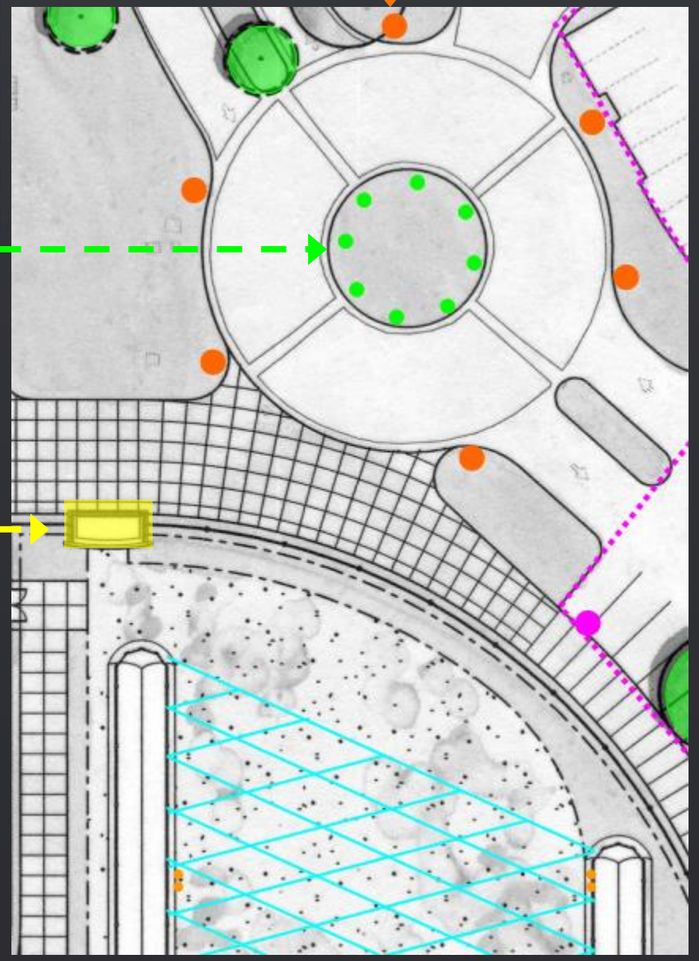
Entry rotary & Box Office



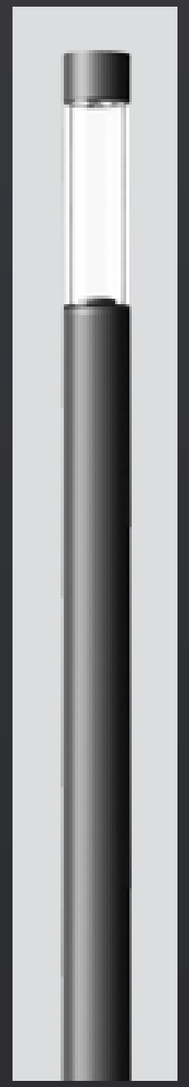
Accent lighting for sculpture/landscaping/flagpole

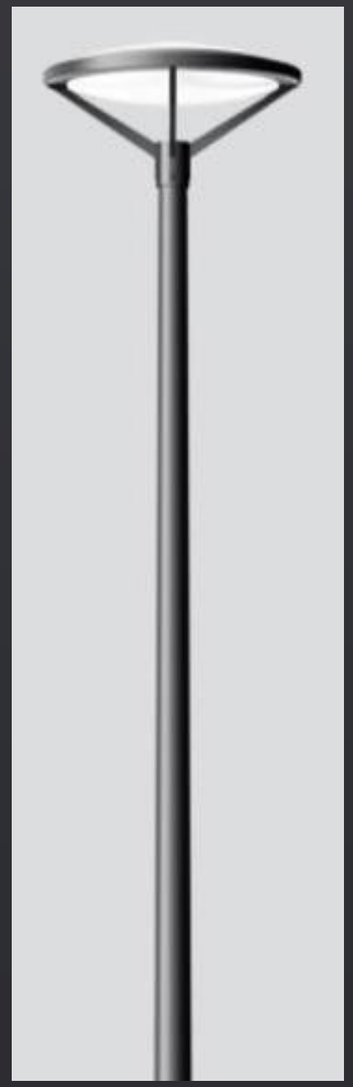


Internally Glowing Box Office with Translucent Material

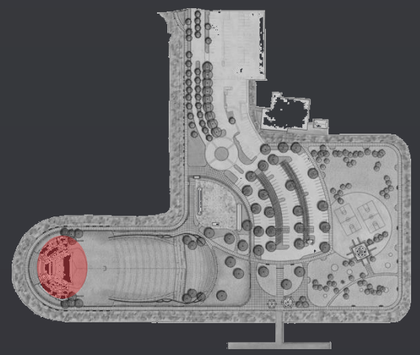


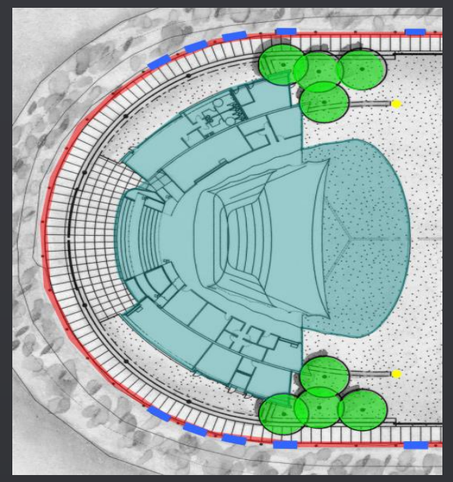
Pedestrian scale Pole





Amphitheater





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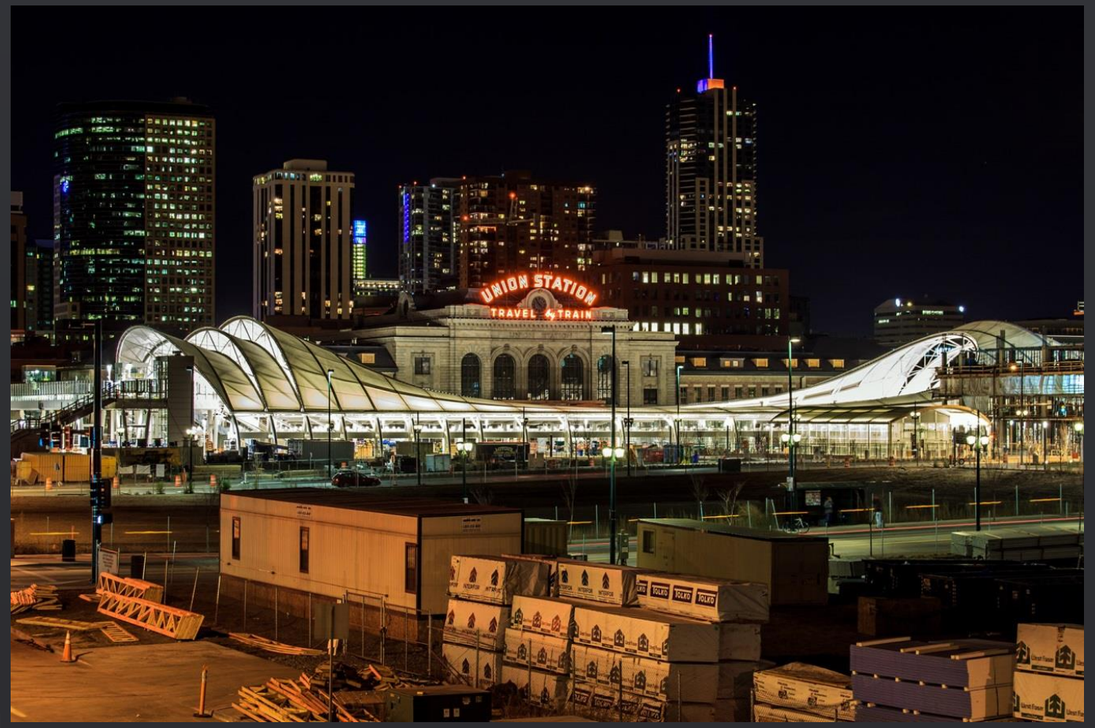
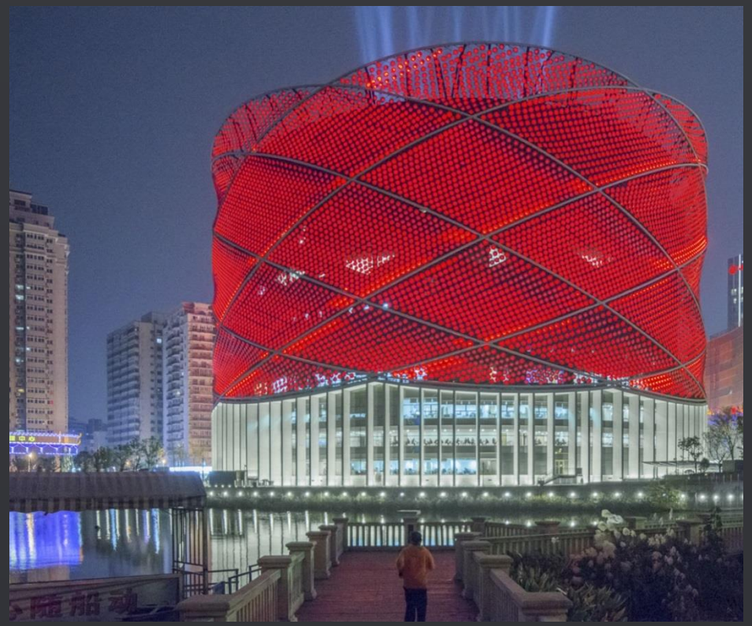
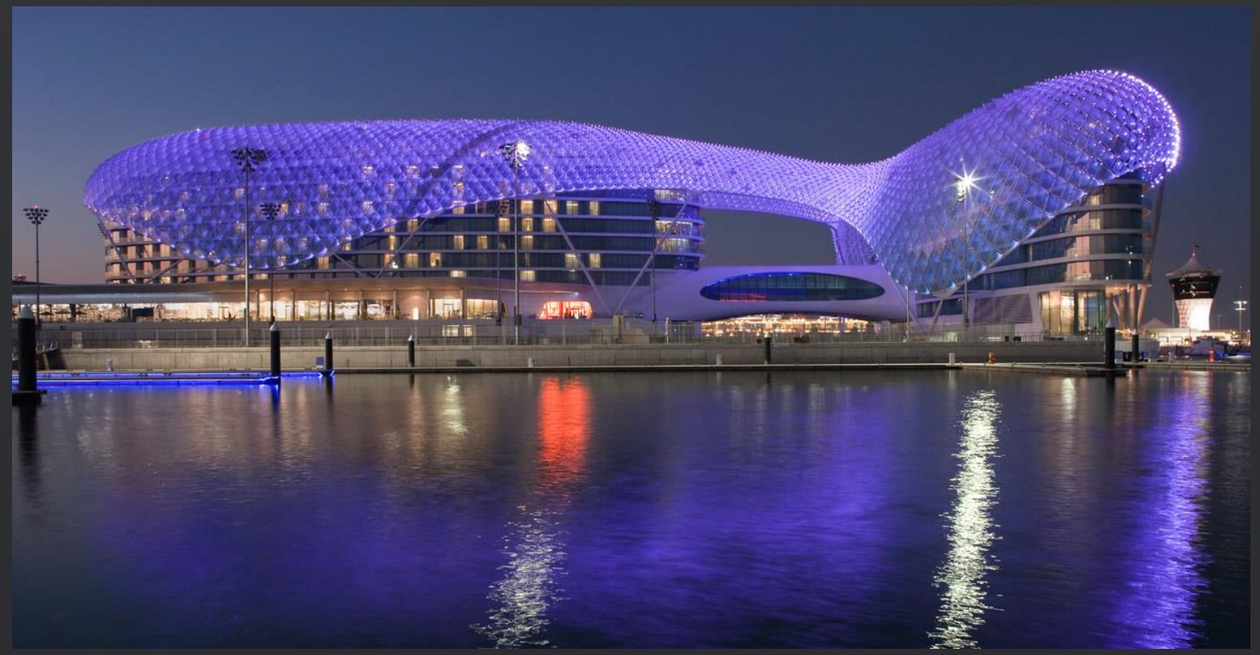
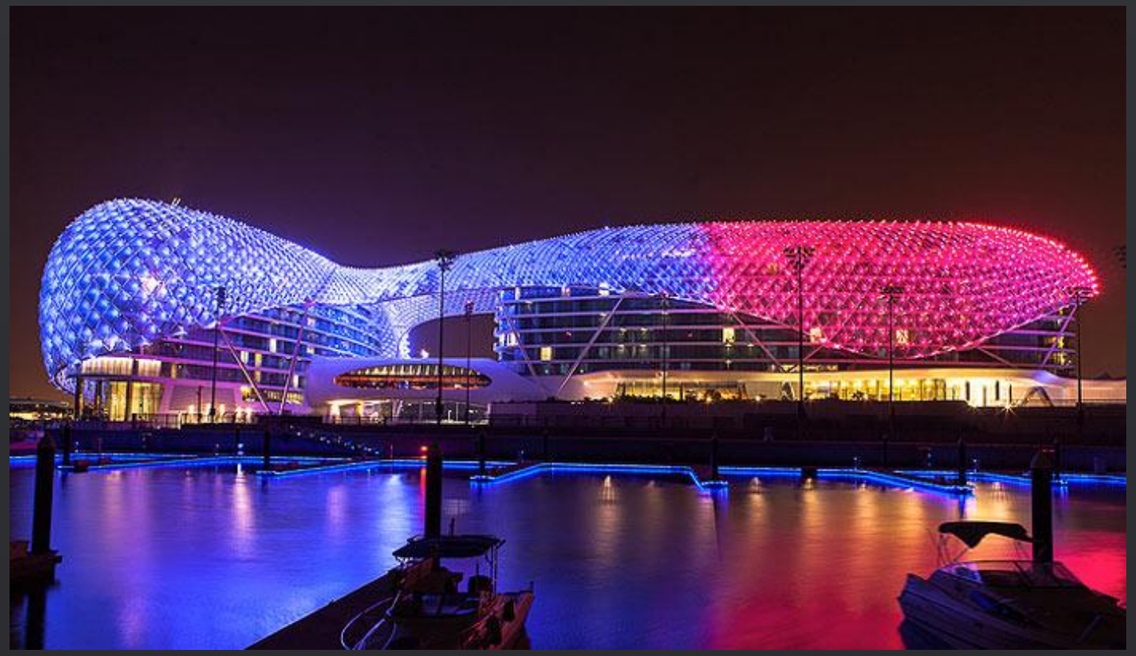


Amphitheater Lighting References

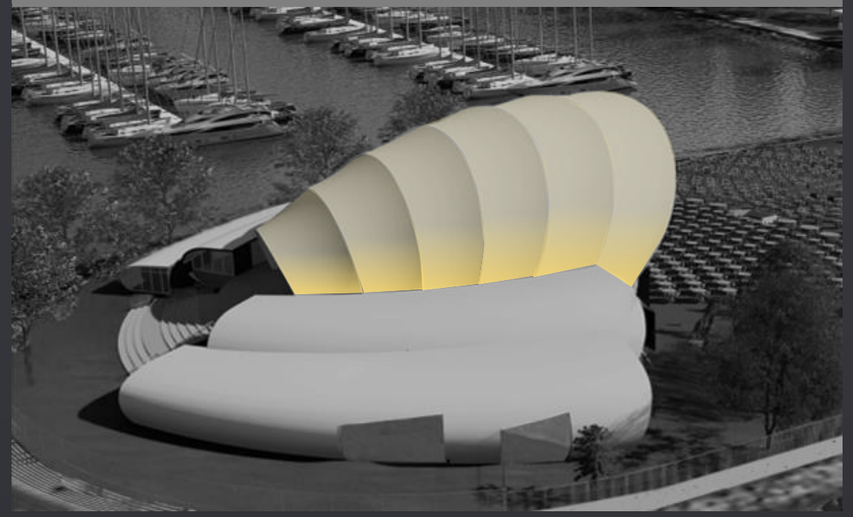


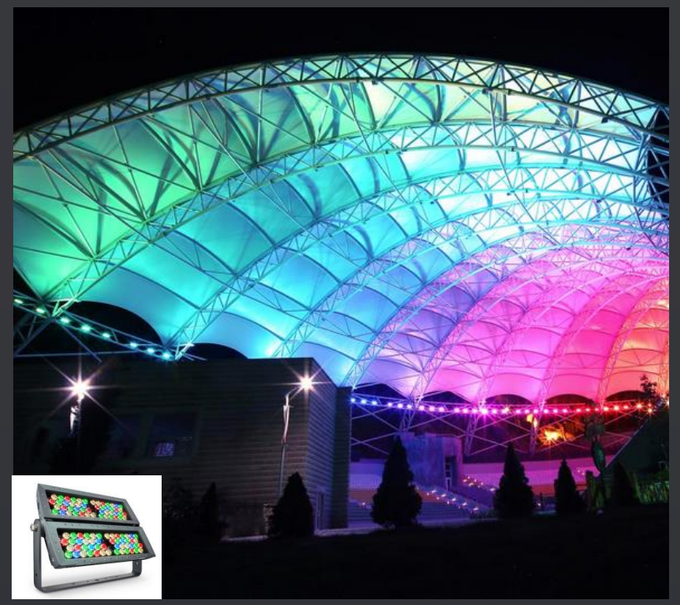




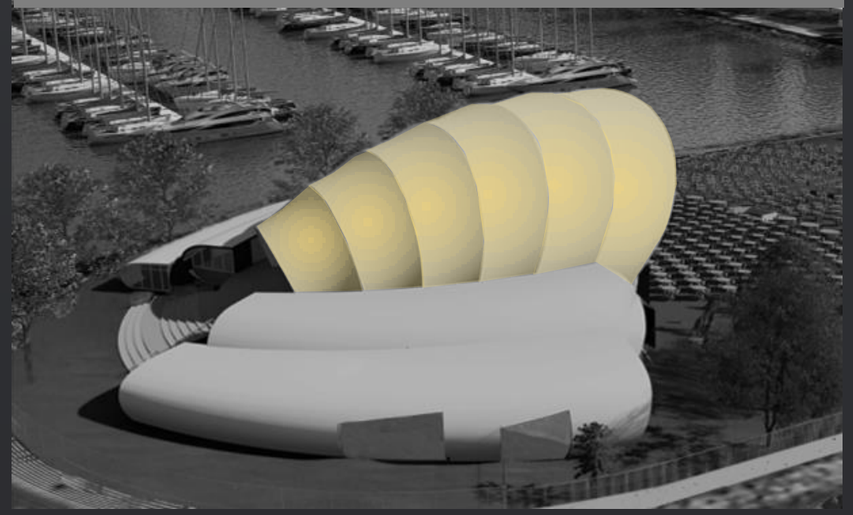
Amphitheater Lighting Options

Option 1
Color Changing LED Lighting from External Fixture Locations



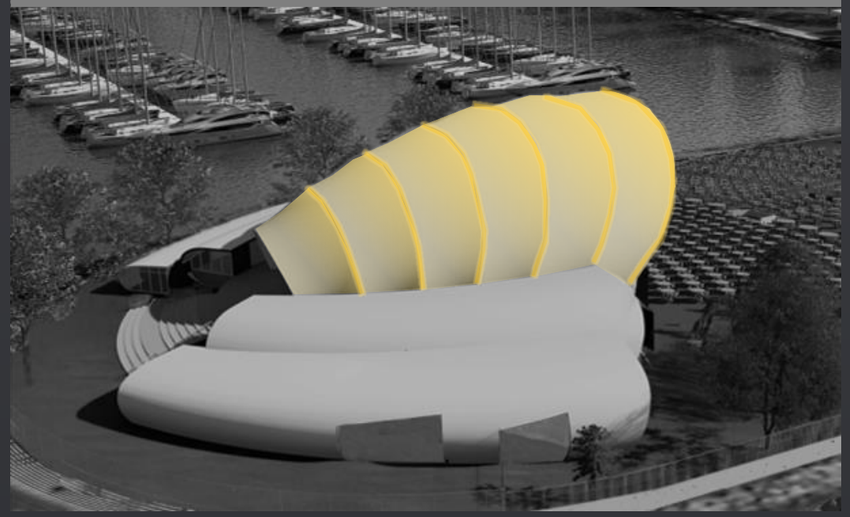


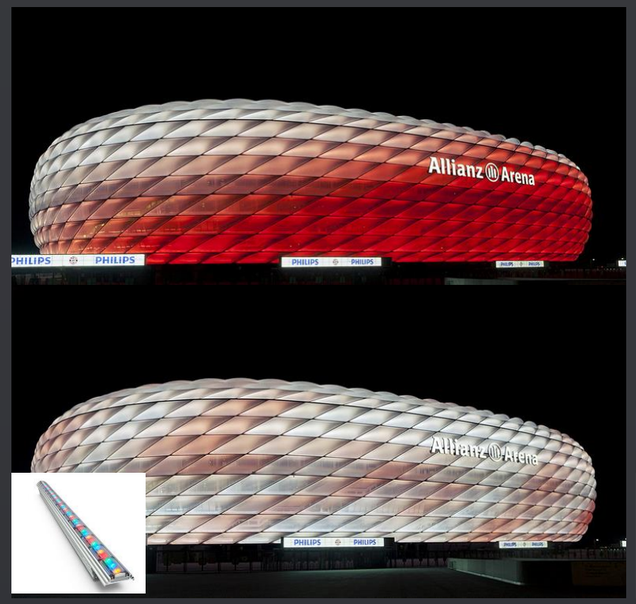
Option 2
Glowing Effect from Internal LED Fixture Locations

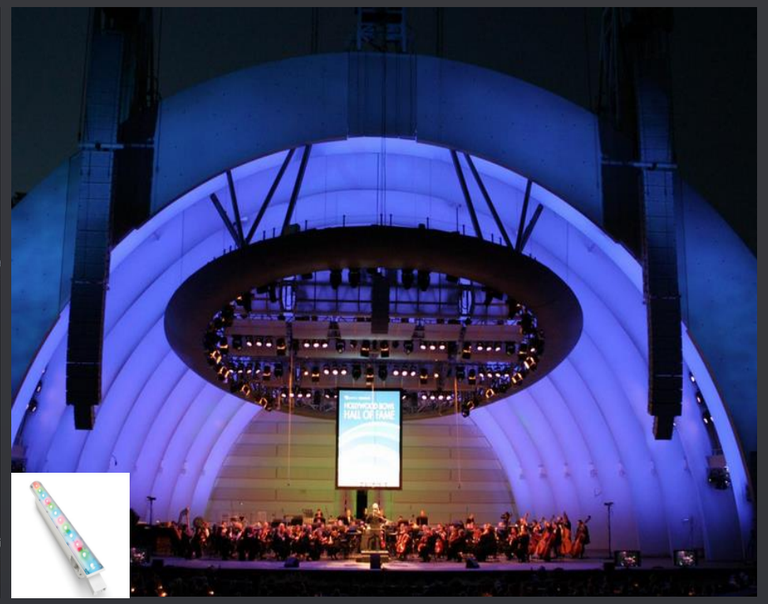


Amphitheater Lighting Options

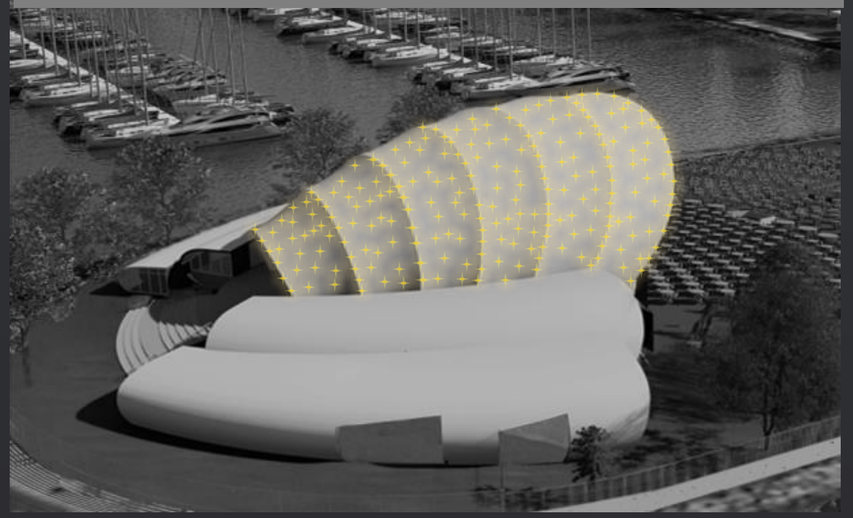
Option 3
Color Changing LED Linear Lights Along the Structure

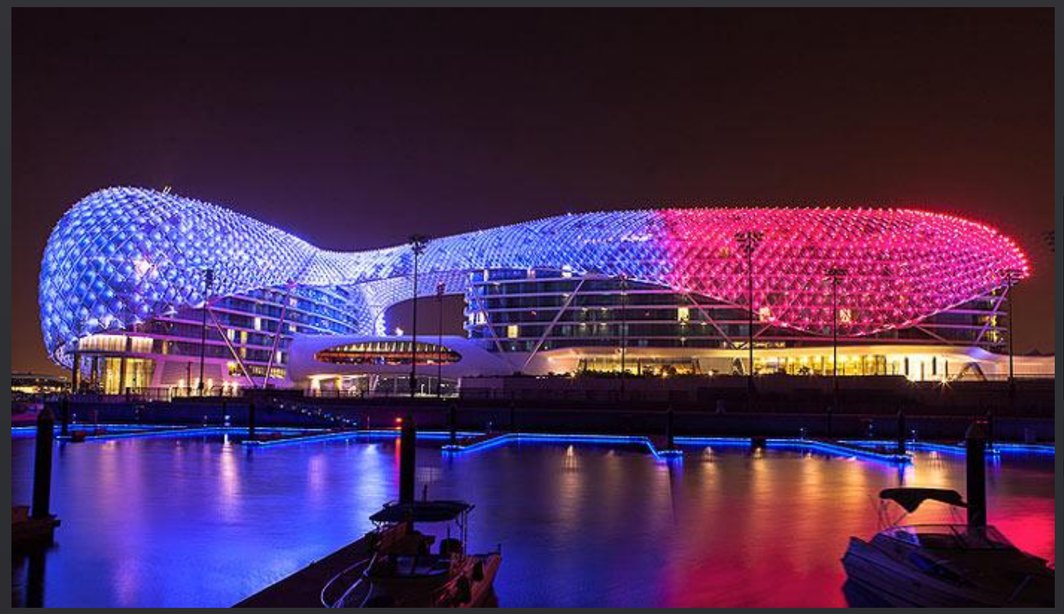




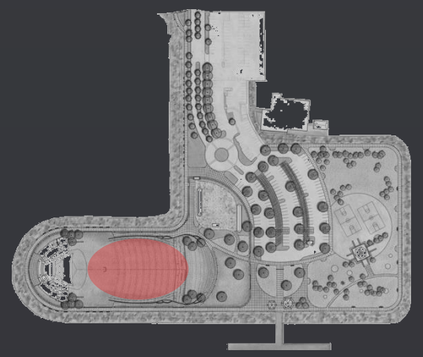


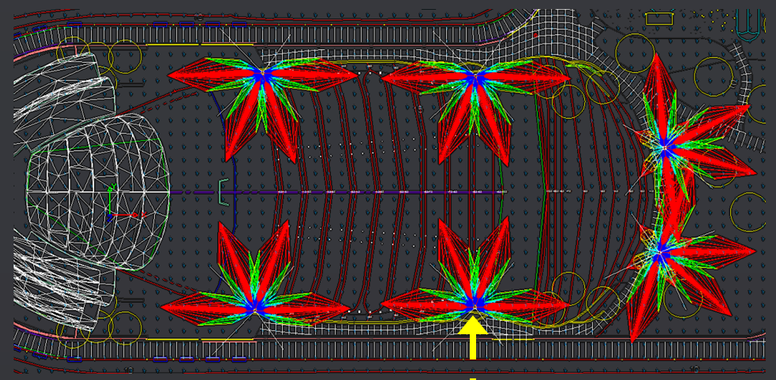
Option 3
Color Changing LED Nodes

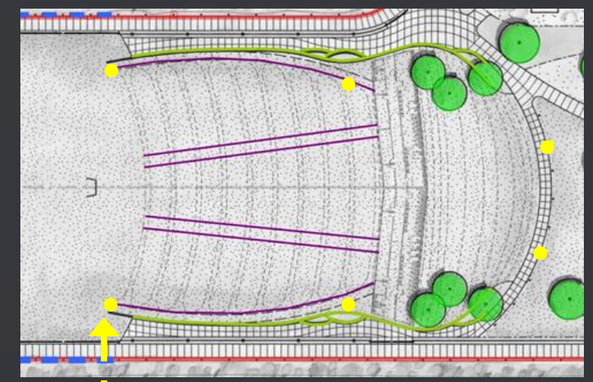




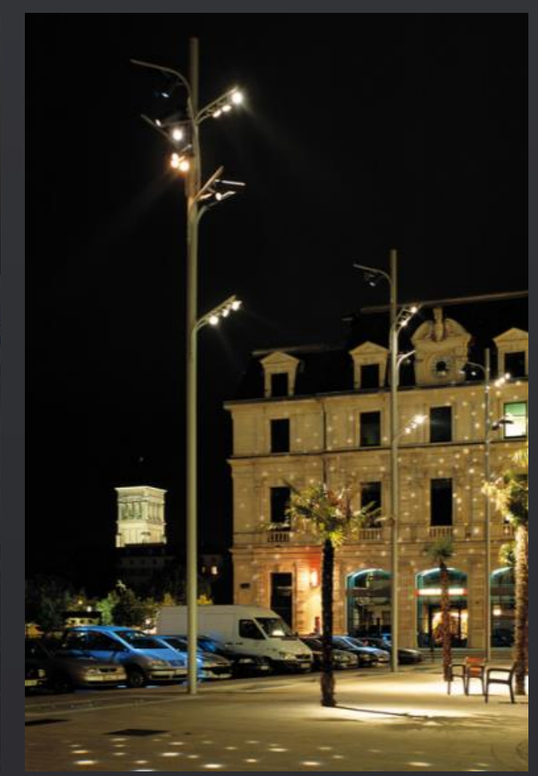
Lawn Area Lighting



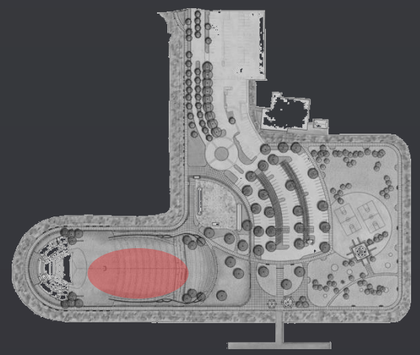




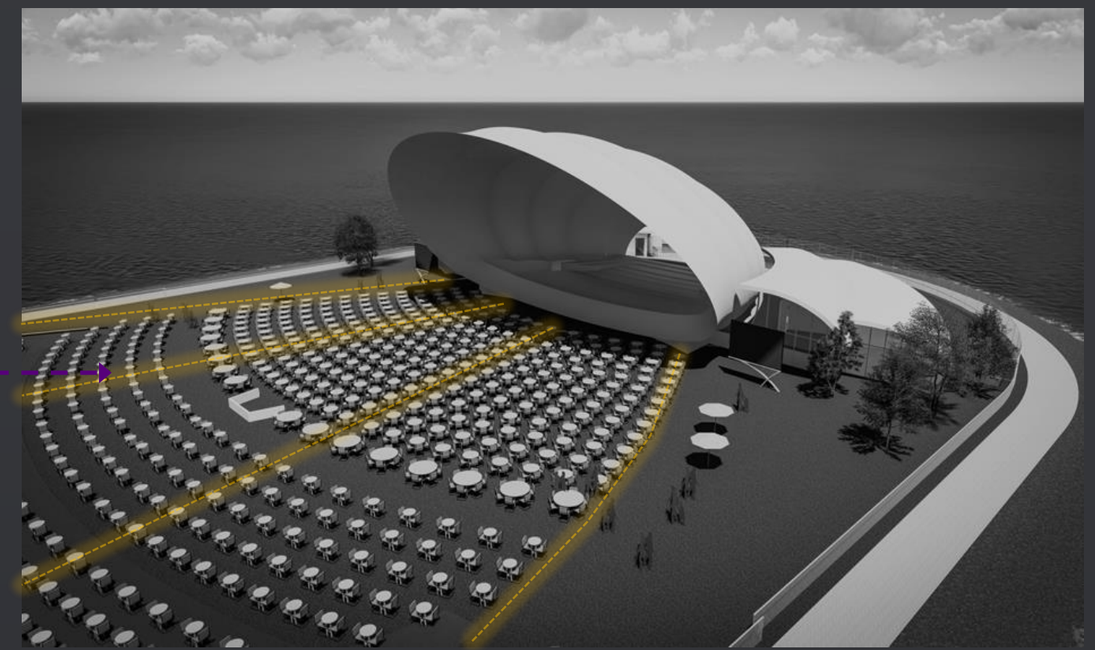
Multi-headed Pole Lighting

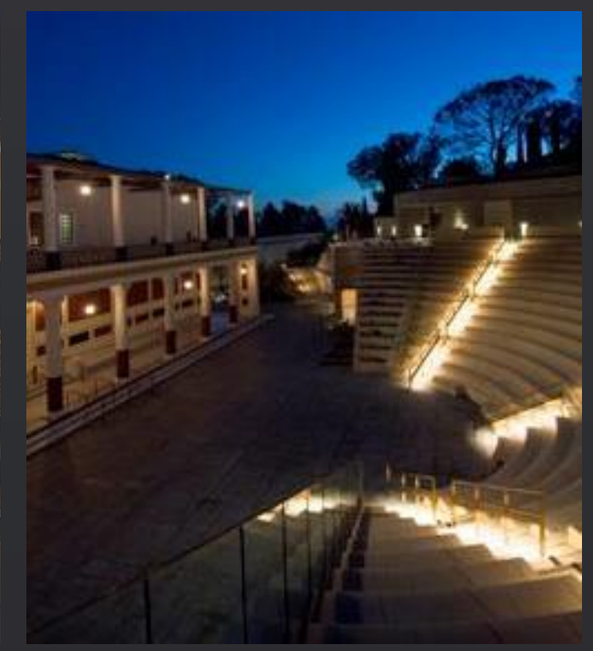


Lawn Area Aisle Lighting

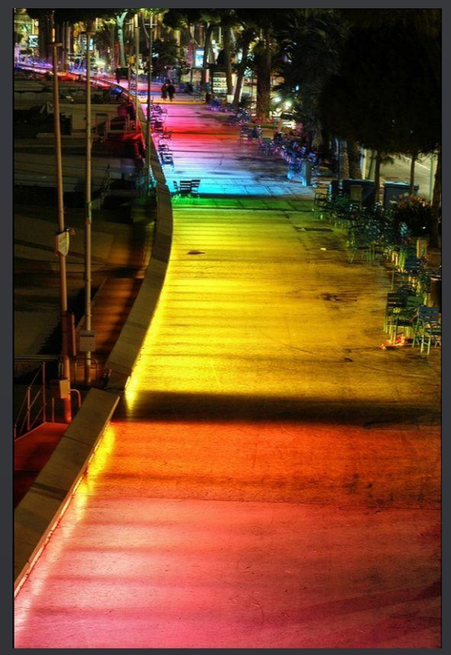


Handrail lighting with LED Puck Lights





Intriguing Pedestrian Pathway Lighting



Adjacent Projects

Thank You

Air Quality Analysis for the Bayside Performance Park Enhancement Project and Port Master Plan Amendment San Diego, California

Prepared for
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101
Contact: Joseph D. Smith, AICP

Prepared by
RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101
P 619.308.9333

RECON Number 8293
April 17, 2017

Jack T. Emerson, Environmental Analyst

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ATTACHMENTS

1: CalEEMod Output – Project Emissions
2: CALINE4 Output

Acronyms

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m3	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
Applicant	San Diego Symphony
AQIA	Air Quality Impact Analysis
BTU	British thermal units
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	carbon monoxide
District	San Diego Unified Port District
DPM	diesel particulate matter
EMPS	Embarcadero Marina Park South
LOS	Level of Service
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
PMP	Port Master Plan
ppb	parts per billion
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROG	reactive organic gases
SANDAG	San Diego Association of Governments
SCAB	South Coast Air Basin
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	oxides of sulfur
SR-163	State Route 163
Symphony	San Diego Symphony Orchestra
TAC	toxic air contaminants
TCM	Transportation Control Measures
U.S. EPA	United States Environmental Protection Agency
USC	United States Code
WRCC	Western Regional Climate Center

Executive Summary

The project proposes enhancements to the Embarcadero Marina Park South (EMPS), including construction of a permanent[1] venue for the San Diego Symphony (Applicant), on San Diego Unified Port District (District) tidelands in the city of San Diego, California. The project site is approximately 0.38 mile east of the City of Coronado Ferry landing. EMPS (project site) is a public park with grass areas, walkways, a pavilion, basketball courts, fitness stations, a parking lot, a finishing pier, and a perimeter promenade. The project proposes refurbishment, replacement, and reorientation of existing park amenities and the construction of a permanent performance stage, an acoustic shell, a sloped synthetic turf (sand based) lawn area, concrete steps and viewing deck, box office, dressing rooms, subgrade restrooms, and two food pavilions. This report discusses potential air quality impacts from the construction and operation of the project. A summary of the findings is provided below.

Air Quality in San Diego is regulated by the San Diego Air Pollution Control District (SDAPCD). The SDAPCD has adopted a Regional Air Quality Strategy (RAQS). The primary goal of the RAQS is to reduce ozone precursor emissions. The project would be consistent with the Park/Plaza land use designation identified in the certified Port Master Plan (PMP) and the growth anticipated by the San Diego Association of Governments (SANDAG). The proposed project would therefore not result in an increase in emissions that are not already accounted for in the RAQS. Thus, the project would not interfere with implementation of the RAQS or other air quality plans.

As calculated in this analysis, project construction emissions would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions are well below these limits, project construction would not result in regional emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) or contribute to existing violations. Additionally, construction emissions would be temporary, intermittent, and would cease at the end of project construction, which is anticipated to last approximately eight months.

Long-term emissions of regional air pollutants occur from operational sources. Based on emissions estimates, project operational emissions would not exceed the applicable regional emissions thresholds. Therefore, as project emissions would be well below these limits, project operations would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations.

Maximum carbon monoxide (CO) concentrations with project-generated traffic added to existing traffic would occur at the intersection of Fifth Avenue and Harbor Drive and would

[1] The analysis considers the environmental impacts associated with the project during a maximum duration term of any Real Estate Agreement which, under the Public Trust Doctrine, is up to 66 years. This analysis refers to proposed enhancements as "permanent" due to their longevity.

be less than the CAAQS and NAAQS. This is due to a projected increase in delay at this intersection with the addition of project generated traffic. All other intersections would experience shorter delays than the intersection of Fifth Avenue and Harbor Drive. Thus, it can be concluded that CO concentrations at other intersections would be less than the CO concentrations calculated in this analysis. There would be no harmful concentrations of CO, and localized air quality emissions would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

The project does not include industrial or agricultural uses that are typically associated with objectionable odors. The project would involve the use of diesel-powered equipment during construction. Diesel exhaust may occasionally be noticeable at adjacent properties; however, construction activities would be temporary and the odors would dissipate quickly in an outdoor environment. Therefore, this impact would be less than significant.

1.0 Introduction

The purpose of this report is to assess potential short-term and long-term local and regional air quality impacts resulting from development of the project.

Air pollution affects all southern Californians. Effects can include the following:

- Increased respiratory infections
- Increased discomfort
- Missed days from work and school
- Increased mortality
- Damages to agriculture and natural environment.

The project is located within the San Diego Air Basin (SDAB), one of 15 air basins that geographically divide the state of California. The SDAB is currently classified as a federal non-attainment area for ozone, and a state non-attainment area for particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and ozone.

Air quality impacts can result from the construction and operation of the project. Construction impacts would consist of short-term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts would be long-term and can occur on two levels: regional impacts resulting from growth-inducing development or local hot-spot effects affecting sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts would be primarily due to emissions to the basin from mobile sources associated with vehicular travel along the roadways within the project area.

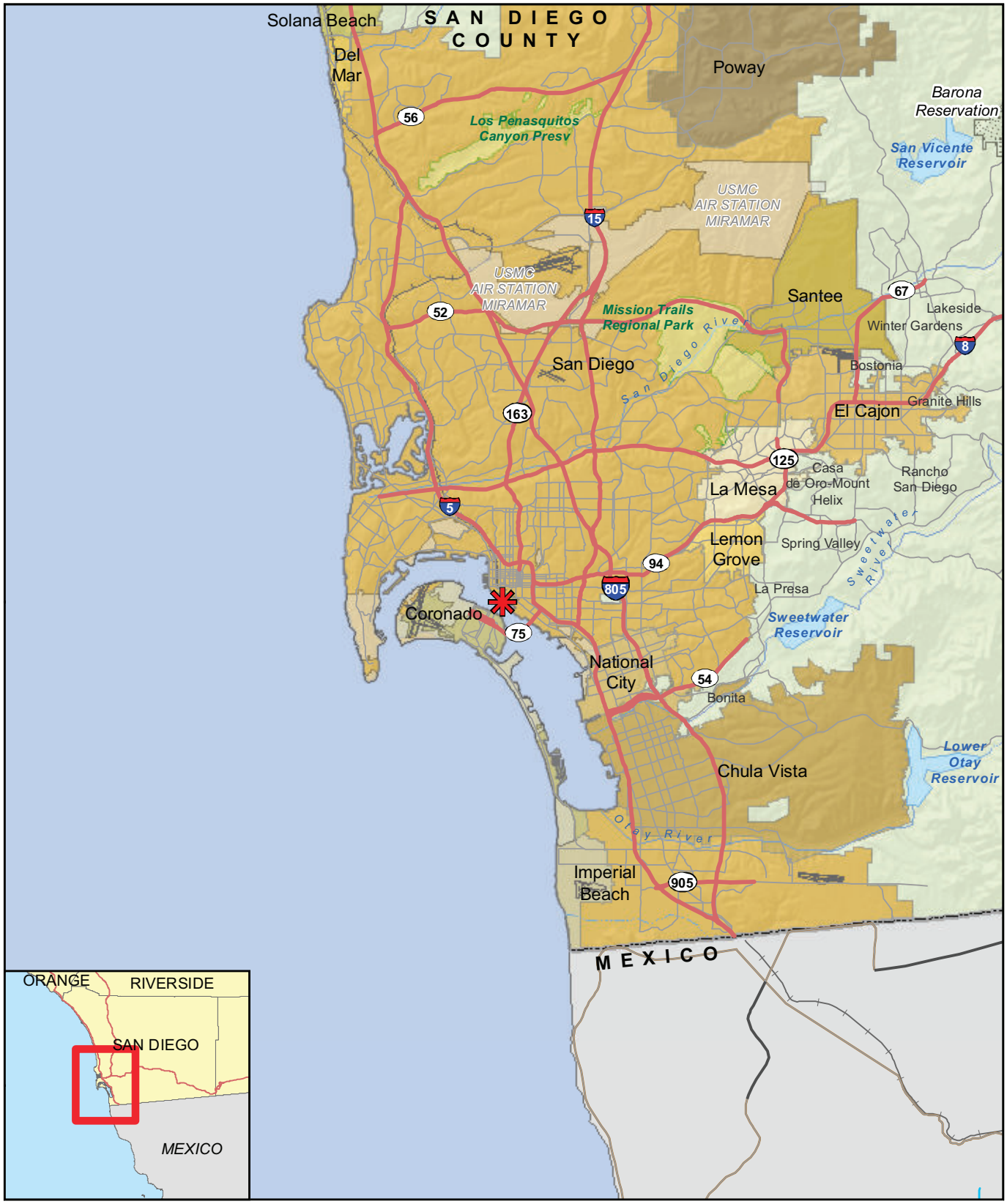
The analysis of impacts is based on federal and state Ambient Air Quality Standards (AAQS) and is assessed in accordance with the guidelines, policies, and standards established by the City of San Diego and the San Diego County Air Pollution Control District (SDAPCD). Project compatibility with the adopted air quality plan for the area is also assessed.

2.0 Project Description

The project site is located within the Embarcadero Marina Park South (EMPS), which is included in the Centre City Embarcadero Planning District of the certified Port Master Plan (PMP). The project includes public park enhancements within EMPS, including the construction of a permanent performance stage and acoustic shell, and associated discretionary actions, including, a PMP Amendment and a non-appealable Coastal Development Permit. The PMP is the governing land use document for physical development under the jurisdiction of the San Diego Unified Port District (District). The project includes public amenity enhancements throughout EMPS and the construction of a permanent performance stage within a portion of EMPS. The PMP Amendment would amend the precise plan text within the Marina Zone subarea of the Centre City Embarcadero Planning District 3. The applicant is the San Diego Symphony Orchestra (Symphony or Applicant).

The project also includes a synthetic turf seating area, box office, dressing rooms, restrooms, and food pavilions. These project elements would be located within approximately one third of EMPS designated as the Bayside Performance Park. Project construction would begin in October 2018 and would last approximately 8 months, followed by a 1- to 2-month commissioning and site testing phase, for a total construction duration of up to 10 months. Once completed, the redeveloped 10.8-acre EMPS would comprise approximately 1.50 acres of public walkways, 2.46 acres of natural lawn, 2.36 acres of synthetic turf, 0.35 acre of permeable pavers, 1.12 acres of concrete pavers, and a 1.80-acre public parking lot. The performance stage would have a footprint of approximately 0.29 acre. The Bayside Performance Park area would cover approximately 3.47 acres of EMPS, or approximately 32 percent of EMPS.

Figure 1 shows the regional location. Figure 2 shows an aerial photograph of the project vicinity. Figure 3 shows the proposed site plan.



Project Location

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FIGURE 1

Regional Map

Image Source: Nearmap (flown July 2016)

0 Feet 650

Project Location

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FIGURE 2

Project Vicinity Map

Map Source: Tucker Sadler

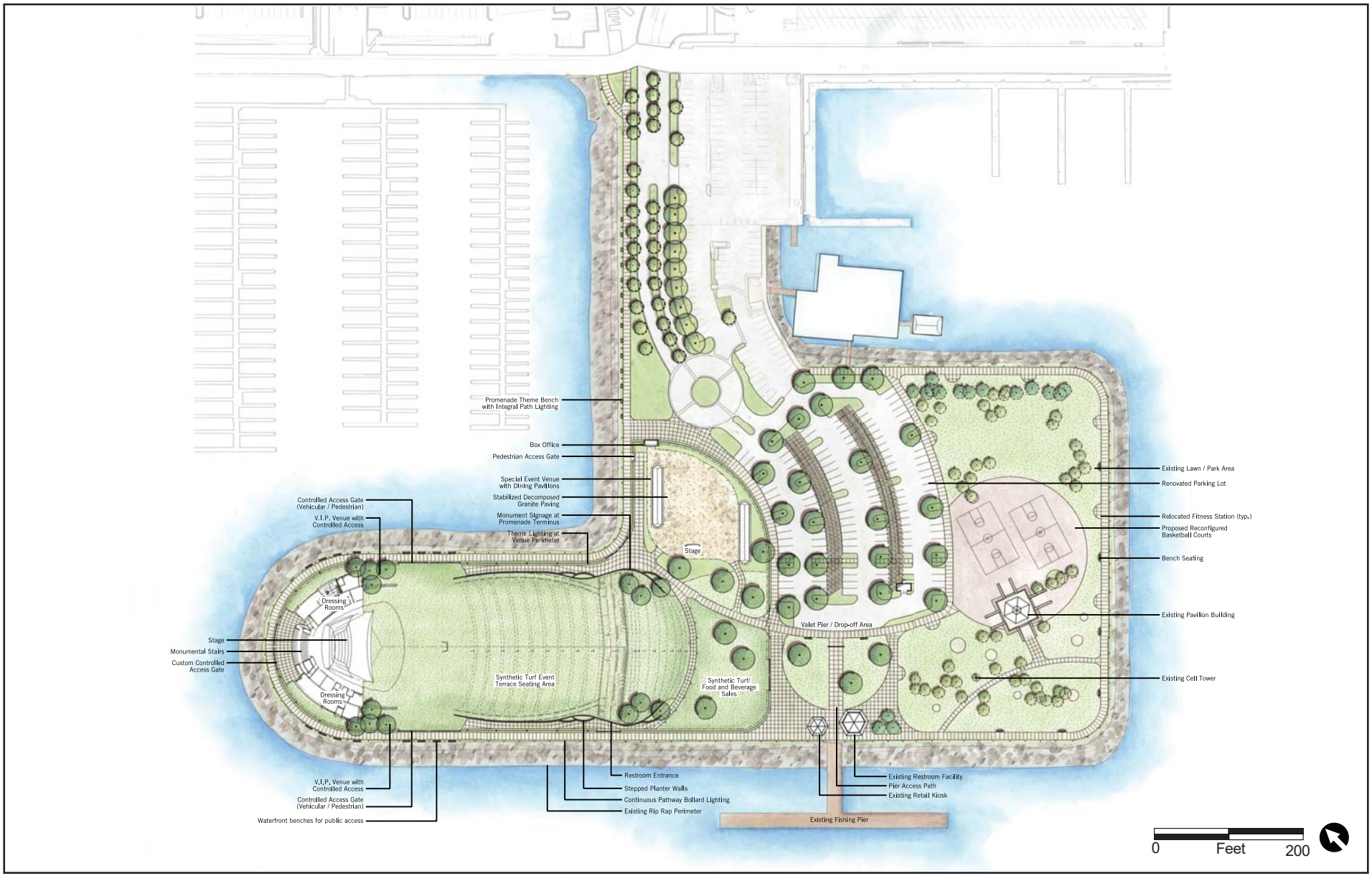

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FIGURE 3
Site Plan

3.0 Regulatory Framework

Motor vehicles are San Diego County's leading source of air pollution (SDAPCD 2013). In addition to these sources, other mobile sources include construction equipment, trains, and airplanes. Emission standards for mobile sources are established by state and federal agencies, such as the California Air Resources Board (CARB) and the United States Environmental Protection Agency (U.S. EPA). Reducing mobile source emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources, such as those associated with new or modification projects (e.g., retrofitting older vehicles with cleaner emission technologies). The state of California has developed statewide programs to encourage cleaner cars and cleaner fuels. The regulatory framework details the federal and state agencies (described below) that are in charge of monitoring and controlling mobile source air pollutants and the measures currently being taken to achieve and maintain healthful air quality in the SDAB.

In addition to mobile sources, stationary sources also contribute to air pollution in the SDAB. Stationary sources include shipyards, marine terminals, gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SDAPCD.

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme non-attainment area for that pollutant (there is also a marginal classification for federal non-attainment areas).

Once a non-attainment area has achieved the air quality standards for a particular pollutant, it may be redesignated as an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and prepare a maintenance plan demonstrating the ability of the basin to continue to meet and maintain air quality standards, as well as satisfy other requirements of the Clean Air Act (CAA). Areas that are redesignated attainment are called maintenance areas.

3.1 Federal Regulations

Ambient Air Quality Standards represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal CAA was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (PM_{10} and $PM_{2.5}$). The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 1 (CARB 2015). The SDAB is a non-attainment area for the 8-hour federal ozone standard.

3.2 State Regulations

3.2.1 Criteria Pollutants

The U.S. EPA allows states the option to develop different (stricter) standards. The state of California has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants (see Table 1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 1). Similar to the federal CAA, the state classifies specific geographic areas as either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The SDAB is a non-attainment area for the state ozone standards, the state PM_{10} standard, and the state $PM_{2.5}$ standard.

3.2.2 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m³)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m³)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[10]	–	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chroma-tography			

Table 1
Ambient Air Quality Standards

SOURCE: CARB 2015

NOTE: ppm = parts per million; ppb = parts per billion; μg/m^3 = micrograms per cubic meter; – = not applicable.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board (ARB) to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m^3 to 12.0 μg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m^3, as was the annual secondary standards of 15 μg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 μg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII.

Of particular concern statewide are diesel-exhaust particulate matter emissions. Diesel-exhaust particulate matter was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter (DPM) as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020.

In April 2005, CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate and other TACs as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

3.2.3 State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), local air district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The SDAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these objectives.

3.2.4 The California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

3.3 San Diego County Air Pollution Control District

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the Regional Air Quality Strategy (RAQS) in response to the requirements set forth in the California CAA AB 2595 (County of San Diego 1992). Included as part of the RAQS, transportation control measures were prepared for the air quality plan by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992 as Resolution Number 92-49 and Addendum. The RAQS and transportation control measures set forth the steps needed to accomplish attainment of state AAQS. The required triennial updates of the RAQS and corresponding transportation control measures were adopted in 1995, 1998, 2001, 2004, and 2009. The SDAPCD published a workshop draft of the 2016 RAQS in August 2016. SDAPCD has solicited public feedback on the draft 2016 RAQS through public meetings.

The SDAPCD has also established a set of rules and regulations initially adopted on January 1, 1969 and periodically reviewed and updated. These rules and regulations are available for review on the agency's website.

4.0 Environmental Setting

4.1 Geographic Setting

The project is located along the eastern bank of the San Diego Bay and is subject to frequent onshore breezes.

4.2 Climate

The project site is adjacent to the San Diego Bay and approximately 2 miles east of the Pacific Ocean. The San Diego Bayfront, like the rest of San Diego County, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. Based on meteorological data recorded at San Diego International Airport , which is approximately 2.2 miles northwest of the project site, the local temperature range is relatively limited, with winter low temperatures along the coast averaging about 49 degrees Fahrenheit (°F), and summer high temperatures average about 74°F. The average annual precipitation is 10.1 inches, falling primarily from December to March. Snowfall is infrequent (WRCC 2016).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that what occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become “trapped” as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater differences between the morning and afternoon mixing depths correspond to increased dispersion of pollutants in the atmosphere.

Throughout the year, the height of the temperature inversion in the afternoon varies between approximately 1,500 and 2,500 feet above mean sea level. In winter, the morning inversion layer is about 800 feet above mean sea level. In summer, the morning inversion layer is about 1,100 feet above mean sea level. Therefore, air quality generally tends to be better in the winter than in the summer.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada–Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Ana winds tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak,

local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin (SCAB) to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event occurs, the combination of transported and locally produced contaminants produce the worst air quality measurements recorded in the basin.

4.3 Existing Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The SDAPCD maintains 10 air-quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The San Diego–Beardsley monitoring station, located at 1110A Beardsley Street, approximately one mile east of the project site, is the nearest station to the project area. The San Diego–Beardsley monitoring station measures ozone, CO, NO_2, PM_{10}, and $PM_{2.5}$. Table 2 provides a summary of measurements collected at the San Diego–Beardsley monitoring station for the years 2011 through 2015.

Table 2
Summary of Air Quality Measurements Recorded at the San Diego – Beardsley Monitoring Station

Pollutant/Standard	2011	2012	2013	2014	2015
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0	0	0
Days State 8-hour Standard Exceeded (0.07 ppm)	0	0	0	2	0
Days Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0	0	0
Max. 1-hr (ppm)	0.082	0.071	0.063	0.093	0.089
Max 8-hr (ppm)	0.061	0.065	0.053	0.072	0.067
Carbon Monoxide					
Days Federal 8-hour Standard Exceeded (35 ppm)	0	0	Na	Na	Na
Days State 8-hour Standard Exceeded (20 ppm)	0	0	Na	Na	Na
Max. 1-hr (ppm)	2.80	2.60	Na	Na	Na
Max. 8-hr (ppm)	2.44	1.81	Na	Na	Na
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.067	0.065	0.072	0.075	0.062
Annual Average (ppm)	0.014	0.013	0.014	0.013	0.014
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 μg/m^3)	0	0	1	0	1
Calculated Days State 24-hour Standard Exceeded (50 μg/m^3)	0.0	0.0	6.0	0	5.7
Measured Days Federal 24-hour Standard Exceeded (150 μg/m^3)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 μg/m^3)	0.0	0.0	0.0	0.0	0
State Max. Daily (μg/m^3)	49.0	47.0	92.0	41.0	53.0
State Annual Average (μg/m^3)	24.0	22.2	25.4	23.8	23.2
Federal Annual Average (μg/m^3)	23.3	21.8	24.9	23.3	23.0
$PM_{2.5}$*					
Measured Days Federal 24-hour Standard Exceeded (35 μg/m^3)	0	1	1	1	0
Calculated Days Federal 24-hour Standard Exceeded (35 μg/m^3)	0.0	1.0	1.1	1.0	0.0
Federal Max. Daily (μg/m^3)	34.7	39.8	37.4	36.7	33.4
State Annual Average (μg/m^3)	10.9	Na	10.4	10.2	10.2
Federal Annual Average (μg/m^3)	10.8	11.0	10.3	10.1	9.3

SOURCE: CARB 2016.
* Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

4.3.1 Ozone

Nitrogen oxides and hydrocarbons (reactive organic gases [ROG]) are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution—or smog—is mainly a concern during the daytime in summer months. The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 25 years, San Diego had experienced a decline in the number of days with unhealthy levels of ozone despite the region's growth in population and vehicle miles traveled (SDAPCD 2013).

About half of smog-forming emissions come from automobiles. Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants while operating on area roadways. In addition, the occasional transport of smog-filled air from the SCAB only adds to the SDAB's ozone problem. Stricter automobile emission controls, including more efficient automobile engines, have played a large role in why ozone levels have steadily decreased.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a non-attainment area for the previous (1997) national 8-hour standard, and is recommended as a non-attainment area for the revised (2008) national 8-hour standard of 0.075 parts per million (ppm).

Not all of the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from SCAB and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced ozone levels in the SDAB.

Actions that have been taken in the SDAB to reduce ozone concentrations include:

- **Transportation control measures if vehicle travel and emissions exceed attainment demonstration levels.** Transportation control measures are strategies that will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.

- **Enhanced motor vehicle inspection and maintenance program.** The smog check program is overseen by the Bureau of Automotive Repair. The program requires most vehicles to pass a smog test once every 2 years and before registering in the state of California. The smog check program monitors the amount of pollutants automobiles produce. One focus of the program is identifying "gross

polluters," or vehicles that exceed two times the allowable emissions for a particular model. Regular maintenance and tune-ups, changing the oil, and checking tire inflation can improve gas mileage and lower air pollutant emissions. It can also reduce traffic congestion due to preventable breakdowns, further lowering emissions.

- **Air Quality Improvement Program.** This program, established by AB 118, is a voluntary incentive program administered by the CARB to fund clean vehicle and equipment projects, research on biofuels production and the air quality impacts of alternative fuels, and workforce training.

4.3.2 Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for CO. Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout San Diego County. No violations of the state or federal CO standards have occurred since 2003.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as "CO hot spots" and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

4.3.3 Particulate Matter

Particulate matter is a complex mixture of microscopic solid or liquid particles including chemicals, soot, and dust. Anthropogenic sources of direct particulate emissions include crushing or grinding operations, dust stirred up by vehicle traffic, and combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning and industrial processes. Additionally, indirect emissions may be formed when aerosols react with compounds found in the atmosphere.

Health studies have shown a significant association between exposure to particulate matter and premature death in people with heart or lung diseases. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (U.S. EPA 2016).

As its properties vary based on the size of suspended particles, particulate matter is generally categorized as particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) or particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$)

4.3.3.1 PM_{10}

PM_{10}, which is occasionally referred to as "inhalable coarse particles", has an aerodynamic diameter of about one-seventh of the diameter of a human hair. High concentrations of PM_{10} are often found near roadways, construction, mining, or agricultural operations.

4.3.3.2 $PM_{2.5}$

$PM_{2.5}$, which is occasionally referred to as "inhalable fine particles", has an aerodynamic diameter of about one-thirtieth of the diameter of a human hair. PM2.5 is the main cause of haze in many parts of the United States. Federal standards applicable to PM2.5 were first adopted in 1997.

4.3.4 Other Criteria Pollutants

The national and state standards for NO_2, oxides of sulfur (SO_X), and the previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for vinyl chloride, hydrogen sulfides, sulfates, and visibility-reducing particulates.

5.0 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to air quality would be significant if the project would:

1. Conflict or obstruct the implementation of the applicable air quality plan;
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable NAAQS or CAAQS i.e. ozone and particulate matter;
4. Expose sensitive receptors to substantial pollutant concentrations; or
5. Create objectionable odors affecting a substantial number of people.

The SDAPCD does not provide specific numeric thresholds for determining the significance of air quality impacts under CEQA. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new, modified, or relocated stationary sources (SDAPCD Rules 20.1, 20.2, and 20.3). These AQIA trigger levels do not generally apply to construction, mobile sources, or general land development projects; however, for comparative purposes, these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the proposed project were approved. SDAPCD Rules 20.2 and 20.3 do not specify thresholds for ROG. However, Rule 20.1 equates ROG and oxides of

nitrogen (NO_X) emissions and applies the same limitation on ROG and NO_X emissions in ozone non-attainment areas; therefore, the ROG threshold is set equal to the NO_X threshold. The air quality thresholds used in this analysis are shown in Table 3.

Table 3
Air Quality Impact Analysis Trigger Levels

Pollutant	Emission Rate (pounds/hour)	Emission Rate (pounds/day)	Emission Rate (tons/year)
NO_x	25	250	40
SO_x	25	250	40
CO	100	550	100
PM_{10}	--	100	15
Lead	--	3.2	0.6
ROG	--	250	--
$PM_{2.5}$	--	67	10

SOURCE: SDAPCD, Rules 20.1, 20.2, 20.3 (SDAPCD 2016).
[1] ROG threshold based on federal General Conformity de minimis levels for ozone precursors.

The SDAPCD does not consider AQIA trigger levels to represent significance thresholds because exceedances do not necessarily result in air quality impacts; rather, AQIA trigger levels were developed to identify sources with emissions that are too small to cause or substantially contribute to violations of NAAQS or CAAQS and therefore do not warrant further air quality analysis or permitting. Where AQIA trigger levels would be exceeded the SDAPCD Rules 20.3 states that the new, modified, or relocated emission source would require air quality impact analysis to determine whether if it would:

a) Cause a violation of state or national ambient air quality standards anywhere that does not already exceed such standard, or

b) Cause additional violations of a national ambient air quality standard anywhere the standard is already being exceeded, or

c) Cause additional violations of a state ambient air quality standard anywhere the standard is already being exceeded, except as provided in Subsection (d)(2)(v), or

d) Prevent or interfere with the attainment or maintenance of any state or national ambient air quality standard.

6.0 Air Quality Assessment

Air quality impacts can result from the construction and operation of a project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot-spot effects stemming from sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts are primarily due to emissions to the basin from mobile sources associated with the vehicular travel along the roadways within the project area.

Air emissions were calculated using California Emissions Estimator Model (CalEEMod) 2016.3.1 (CAPCOA 2016). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. The model estimates mass emissions from two basics sources: construction sources and operational sources (i.e., area and mobile sources).

Inputs to CalEEMod include such items as the air basin containing the project, land uses, trip generation rates, trip lengths, vehicle fleet mix (percentage of autos, medium truck, etc.), trip destination (i.e., percent of trips from home to work, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The CalEEMod output files contained in Attachment 1 indicate the specific outputs for each model run. Emissions of NO_x, CO, SO_x, PM_{10}, $PM_{2.5}$, and ROG are calculated. Emission factors are not available for lead, and consequently, lead emissions are not calculated. The SDAB is currently in attainment of the state and federal lead standards. Furthermore, fuel used in construction equipment and most other vehicles is not leaded.

6.1 Construction-related Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Chemicals used during construction;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Construction operations are subject to the requirements established in Regulation 4, Rules 52, 54, and 55, of the SDAPCD's rules and regulations.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more NO_X, SO_X, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

For public safety reasons, during construction, the public would not have access to portions of EMPS or any area within the project's construction limits. Two options for construction

logistics schedules have been developed to assess potential options to minimize EMPS closures. Following Option 1 construction logistics schedule, construction would occur in a single phase. Construction-related emissions were modeled beginning in October 2018 and lasting for approximately 8 months, followed by a 1- to 2-month commissioning and site testing phase, for a total construction duration of up to 10 months. Project construction would have four distinct phases, demolition (0.5 month), grading (2 months), structural and site work (5 months), and paving (0.5 month). Following Option 2 construction logistics schedule, construction in would be done in four phases, with each phase confined to a subarea within the project site. The Option 2 logistics schedule would take 16 months but would not include more construction equipment use than the primary logistics schedule. Compared to Option 2 construction logistics schedule, Option 1 construction logistics schedule would involve intense construction activity with a short duration and would result in greater maximum daily air emissions than Option 2 construction logistics schedule. This analysis conservatively assumes Option 1 construction logistics schedule. Primary inputs are the numbers of each piece of equipment and the length of each construction phase. Specific construction phasing and equipment parameters provided by the client for Option 1 are summarized in Tables 4 and 5 below.

Table 4
Construction Schedule

Construction Type	Construction (days)	Duration (months)	Number of Personnel	Hauling (round-trips)
Demolition	10	0.5	-	6 to 8
Grading	45	2	3 to 15	7
Structural and Site Work	110	5	Up to 75	25
Paving	10	0.5	4 to 8	-
Total	175 days	8 months	-	

Table 5
Heavy Construction Equipment

Equipment	Number Required
Bulldozer	1
Push Pull Scraper	4
Grader	1
Water Truck	2
Skid Steer (Bobcat)	2
Skip Loader	2
Dump Truck	1
Drill Rig	1
Crane	1
Concrete Pump	2

Project-specific construction equipment was used to model demolition, grading, and construction activities. CalEEMod estimates the required construction equipment when project-specific information is unavailable. The estimates are based on surveys, performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District, of typical construction projects that provide a basis for

scaling equipment needs and schedule with a project's size. Standard assumptions for paving activities were used.

Demolition would require removal of areas of hardscaping, ground cover, and several existing amenities such as fitness equipment and basketball courts. Demolition hauling trips were modeled assuming six inches of excavation across the entire construction site, which would result in approximately 8,000 tons of solid waste. This estimation is conservative, as the actual amount would be less for the reason that only the materials from demolished hardscape and structures would be exported. Site grading would involve movement of soil on-site. As cut and fill would be balanced, no soil would be imported or exported. Standard dust control measures would be implemented as a part of project construction in accordance with SDAPCD rules and regulations. Fugitive dust emissions were calculated using CalEEMod default values; and account for watering of exposed area twice per day.

Table 6 shows the total projected construction maximum daily emission levels for each criteria pollutant. The CalEEMod output files for construction emissions are contained in Attachment 1. As shown, project-generated emissions are projected to be less than the significance thresholds for all criteria pollutants.

Table 6
Summary of Worst-Case Construction Emissions
(pounds per day)

Phase	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Demolition	4	52	24	>1	11	3
Grading	9	106	61	>1	8	6
Structural and Site Work	6	66	40	>1	12	5
Paving	2	18	15	>1	1	1
Maximum Daily Emissions	**9**	**106**	**61**	**>1**	**12**	**6**
Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

6.2 Operation-related Emissions

6.2.1 Mobile and Area Source Emissions

Mobile source emissions would originate from traffic generated by the project and could result in long-term impacts to air quality. Area source emissions would result from activities such as the use of natural gas and consumer products. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions.

Operational emissions due to implementation of the project were calculated using CalEEMod. Mobile emission are estimated in CalEEMod by first calculating trip rate, trip length, trip purpose (e.g., home to work, home to shop, home to other), and trip type percentages for each land use type, based on the land use types and quantities. Vehicle trip

generation rates and trip distances were obtained from the Traffic Impact Analysis prepared for the project (Chen Ryan 2017). Based on surveys of the mode choice of existing Symphony patrons, the project would generate approximately 0.63 vehicle trips per attendee. Maximum trip generation would occur on the day of an event with maximum attendance, 10,000 attendees. Thus, with maximum attendance, the project would result in up to 6,300 trips per day. Although the average trip length in San Diego County is 5.8 miles (SANDAG 2014), Symphony patrons often travel greater distances to attend an event. Based on a survey of Symphony patrons, an average trip distance of 21.44 miles (42.88 miles round trip) was modeled. The vehicle emission factors and fleet mix used in CalEEMod are derived from CARB's Emission Factors 2014 model and account for the effects of applicable regulations such as Pavley I and Low-Emission Vehicle III (LEV III) programs.

Area source emissions associated with the project include natural gas use, consumer products, architectural coatings, and landscaping equipment. Hearths (fireplaces) and woodstoves are also a common source of area emissions; however, the project would not include hearths or woodstoves.

The project would use natural gas for space heating, water heating, and cooking. The energy use associated with full buildout of the project was estimated by the project architect to be approximately 1,618 kilowatt-hours (kWh) and 2,151 British thermal units (BTU) per event. Natural gas consumption was multiplied by standard emission factors published by the U.S. EPA (AP-42).

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents, cleaning compounds, polishes, floor finishes, disinfectants, sanitizers, and aerosol paints but not including other paint products, furniture coatings, or architectural coatings. Emissions due to consumer products are calculated using total building area and product emission factors.

For architectural coatings, ROG off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. ROG evaporative emissions are calculated using building surface area, architectural coating emission factors, and a reapplication rate of 10 percent of area per year. A volatile organic compounds content of 150 grams per liter for exterior architectural coatings and 100 grams per liter for interior architectural coatings was assumed in accordance with SDAPCD Rule 67.0.

Landscaping maintenance includes fuel combustion emission from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers as well as air compressors, generators, and pumps. Emission calculations take into account building area and equipment emission factors. Landscaping maintenance for the entire project site, including lawn areas of EMPS, were modeled.

Table 7 provides a summary of the operational emissions generated by the project. CalEEMod output files for project operation are contained in Attachment 1. As shown, project-generated emissions are projected to be less than the significance thresholds for all criteria pollutants.

Table 7 Summary of Project Operational Emissions (pounds per day)						
Source	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Sources	1	>1	>1	>1	>1	>1
Energy Sources	>1	>1	>1	>1	>1	>1
Mobile Sources	23	118	368	1	106	29
Total	23	118	369	1	106	29
Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
NOTE: Totals may vary due to independent rounding.						

6.2.2 Localized Carbon Monoxide Impacts

Localized CO concentrations are a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses. Guidance for the evaluation of CO hot spots is provided in the *Transportation Project-level Carbon Monoxide Protocol* (CO protocol) (University of California, Davis 1997) prepared for the Environmental Program of the California Department of Transportation by the Institute of Transportation Studies, University of California Davis.

The SDAB is a CO maintenance area under the federal CAA. This means that SDAB was previously a non-attainment area and is currently implementing a 10-year plan for continuing to meet and maintain air quality standards. As a result, ambient CO levels have declined significantly. CO hot spots have been found to occur only at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips. According to the CO Protocol, in maintenance areas, only projects that are likely to worsen air quality necessitate further analysis. The CO Protocol indicates projects may worsen air quality if they worsen traffic flow, defined as increasing average delay at signalized intersections operating at LOS E or F or causing an intersection that would operate at LOS D or better without the project to operate at LOS E or F. Unsignalized intersections are not evaluated, as they are typically signalized as volumes increase and delays increase. Traffic volumes at unsignalized intersections are typically much lower than at signalized intersections.

As the project site is located adjacent to downtown, many of the intersections in the vicinity currently operate at LOS E or F. The traffic study prepared for the project includes anticipated traffic volumes at intersections that would be impacted by project-generated traffic (Chen Ryan 2017). During project events, the following signalized intersections are anticipated to operate at LOS E or worse in the long-term:

- First Avenue and Beech Street *(LOS F during PM Peak Hour)*
- Convention Center Court at Harbor Drive *(LOS F/F during AM/PM Peak Hour)*
- Fifth Avenue at Broadway *(LOS F during PM Peak Hour)*

- Fifth Avenue at G Street *(LOS F during PM Peak Hour)*
- Fifth Avenue at Harbor Drive *(LOS F/F during AM/PM Peak Hour)*
- Park Boulevard at Harbor Drive *(LOS F/F during AM/PM Peak Hour)*

According to the CO protocol, the three worst intersections would require detailed modeling in order to determine if the CO emissions exceeded the thresholds. If one of the intersections fails, then the next worst intersection would be modeled until it is determined that none of the remaining intersections would exceed the NAAQS or CAAQS. As defined by vehicle volumes and average vehicle delay, the three worst intersections were included in modeling. These intersections are:

- Convention Center Court at Harbor Drive *(PM Peak Hour)*
- Fifth Avenue at Harbor Drive *(PM Peak Hour)*
- Park Boulevard at Harbor Drive *(PM Peak Hour)*

CALINE4, a computer air emission dispersion model, with a graphic interface (CalRoads View), was used to calculate CO concentrations at receivers located at each of the three worst intersections. These concentrations were derived from inputs including traffic volumes from the traffic analysis and emission factors from EMFAC2014 (CARB 2014). The detailed modeling is based on the long-term buildout plus design event peak hour traffic volumes and emission factors from EMFAC2014. The one-hour background concentration of CO for the area, 2.8 ppm, was included in the model. This ambient concentration is considered conservative, as it is the highest recorded hourly concentration over the past five years at the San Diego – Beardsley Street monitoring station. This concentration was assumed for all three intersections. The average regional winter low temperature of 49°F was included in the model as reported by the Western Regional Climate Center data for the project area. For a worst-case meteorological setting, the wind angle assumes all wind is blowing at each receptor. The mixing height of pollutants was set at 1,000 feet with a stable atmosphere.

The results of the modeling for these intersections are summarized in Table 8. CALINE4 output is contained in Attachment 2.

Table 8
Intersection Analysis - Maximum CO Concentrations (ppm)

Roadway	Long-Term Buildout Plus Event			Standard CAAQS/NAAQS	
	Hourly Volume	1-Hour Conc.	8-Hour Conc.	1-Hour	8-Hour
Convention Center Ct. at Harbor Dr.	3,229	3.3	2.3	20/35	9.0/9
Fifth Ave. at Harbor Dr.	4,676	4.0	2.8		
Park Blvd. at Harbor Dr.	5,343	3.9	2.7		

NOTE: CO concentrations are based on intersection turning volumes provided in a prior version of the project's Transportation Impact Analysis (TIA) which showed higher intersection volumes compared to the current TIA. Thus, the concentrations presented in this table are conservative.
[1]8-hour concentrations developed based on a 0.7 persistence factor.

As shown, the maximum 1-hour concentration would be 4.0 ppm. This concentration is below the federal and state 1-hour standards. In order to determine the 8-hour

concentration, the 1-hour value was multiplied by a persistence factor of 0.7, as recommended in the CO Protocol. Based on this calculation, the maximum 8-hour concentration would be 2.8 ppm. Thus, increases of CO due to the project would be below the federal and state 8-hour standards. Therefore, localized air quality emissions would be less than significant.

6.3 Impact Analysis

1. *Would the project obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP?*

The California Clean Air Act requires areas that are designated as non-attainment areas of state ambient air quality standards for ozone, CO, SO_2, and NO_2 to prepare and implement plans to attain the standards by the earliest practicable date. The SDAB is designated as a non-attainment area for the state ozone standard. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the state standards for ozone. The two pollutants addressed in the RAQS are ROG and NOx, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions and, by extension, to maintaining and improving air quality. The RAQS, in conjunction with the transportation control measures, were most recently adopted in 2016 as the air quality plan for the region.

The CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed in local land use plans. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the local land use plan would be consistent with the RAQS. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area.

The project site is within EMPS, which is included in the Centre City Embarcadero Planning District 3 of the certified PMP. The project site is in the Marina Zone Subarea and is identified as a Park/Plaza land use designation. The PMP describes Park/Plaza as a use category designating landscaped urban type recreational developments and amenities. It states that "recreational facilities frequently associated with parks include… public art, cultural uses… and recreational program facilities and activities". It also allows for park-activating uses that are ancillary to the public uses.

As compared to the existing temporary venue, the proposed performance and event venue would increase the frequency of events. The existing temporary venue accommodates up to 37 Bayside Summer Nights performances between June and September. The project would expand programming to include year-round events. Up to 110 half-day or 55 full-day Symphony performances and event rentals would be allowed each year. The anticipated

programming for the Bayside Performance Park includes up to 116 events per year (includes 100 Symphony performances, partnership performances, and event rentals that are subject to the limitation of no more than 110 events annually, plus 16 free public events and Education & Community Engagement Program events, which are not subject to limitation). The increased number of events would result in greater annual trip generation and thereby result in greater annual ozone emissions. Rather than annual ozone precursor emissions, RAQS consistency is related to a project's maximum daily ozone precursor emissions.

As compared to the existing temporary venue, the proposed performance and event venue would increase the maximum event seating capacity from approximately 5,800 to 10,000 attendees; the project would thereby increase the maximum daily vehicle trips associated with Bayside Performance Park events by approximately 2,650 trips per day. Other Park/Plaza sites in the District with similar land use designations are commonly used to host events such as festivals, marches, parades, fairs, and firework shows that accommodate several tens of thousands of attendees over the course of a weekend. Thus, although the project would increase the vehicle trips and associated mobile source emissions associated with the Bayside Performance Park events, the project would remain consistent with the land use intensity anticipated by the RAQS.

Additionally, SANDAG transportation control measures from the Sustainable Communities Strategy, San Diego Forward: The Regional Plan (San Diego Forward), include continued helping implement streamlining for projects within transit priority areas (SANDAG 2015). Transit priority areas are areas within one-half mile of a major transit stop (i.e., rail transit station, ferry terminal served by bus or rail transit, or the intersection of major bus routes). Increased development in transit priority areas results in increased transit ridership, reduced vehicle miles traveled, and reduced air pollution (Governor's Office of Planning & Research 2014). The project is within a transit priority area as identified in San Diego Forward Figure C.11 and therefore supports transportation control measures referenced by the RAQS.

As the project would construct cultural and recreational facilities that are consistent with this land use designation, the project would be consistent with the land use designation and would therefore be consistent with growth anticipated by the PMP and SANDAG. As RAQS emissions forecasts are based on land use assumptions from the PMP and SANDAG growth projections, the project is also accounted for in the RAQS. Therefore, the project would not obstruct or conflict with implementation of the San Diego RAQS. Impacts would be less than significant.

2. *Would the project result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

As shown in Table 6, project construction would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions are below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Additionally,

construction emissions would be temporary, intermittent, and would cease at the end of project construction.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 7, project operations would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions would be below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations.

The project would remove air emission sources associated with the temporary concert venue. Project emissions estimates included in this analysis do not account for the air emissions offset by the removal of existing air emission sources and thus are conservative.

3. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?*

The region is classified as an attainment area for all criterion pollutants except ozone, PM_{10}, and $PM_{2.5}$. The SDAB is a non-attainment area for the 8-hour federal and state ozone standards. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone.

As shown in Tables 6 and 7, emissions of ozone precursors (ROG and NO_X), PM_{10}, and $PM_{2.5}$ from construction and operation would be below SDAPCD's AQIA trigger levels. As discussed in Section 5.0, AQIA trigger levels do not represent significance thresholds because exceedances do not necessarily result in air quality impacts. The SDAPCD developed AQIA trigger levels to identify sources with emissions that are too small to cause or substantially contribute to violations of NAAQS or CAAQS and therefore do not warrant further air quality analysis or permitting. Because project emissions would not exceed SDAPCD air quality impact analysis trigger levels, the project would not generate emissions in quantities that would substantially contribute to a cumulatively considerable net increase of ozone, PM_{10}, or $PM_{2.5}$. Impacts would be less than significant.

4. *Would the project expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates?*

The term "sensitive receptor" refers to a person in the population who is more susceptible to health effects due to exposure to an air contaminant than the population at large or to a land use that may reasonably be associated with such a person. Examples include residences, schools, playgrounds, childcare centers, athletic facilities, retirement homes, and long-term health care facilities. As the project site, EMPS, is a public park, it is considered a sensitive receptor. Existing sensitive receptors in the vicinity of the project include Embarcadero Marina Park North approximately 300 feet northwest of the proposed performance and event venue, the Marriott Marquis approximately 950 feet to the

northeast of the proposed performance and event venue (750 feet from the nearest construction disturbance area), the Fifth Avenue Landing Park approximately 1,450 feet from the proposed performance and event venue (800 feet from the nearest construction disturbance area), the San Diego Bayfront Park approximately 1,600 feet from the proposed performance and event venue (1,000 feet from the nearest construction disturbance area), and the Hilton San Diego Bayfront approximately 2,150 feet from the proposed performance and event venue (1,200 feet from the nearest construction disturbance area). Additionally, the Fifth Avenue Landing Project proposes additional sensitive receptors approximately 800 feet west of the proposed performance and event venue (150 feet from the nearest construction disturbance area). The Fifth Avenue Landing Project Draft Environmental Impact Report indicates that construction would last approximately 30 months. Thus, if approved, the Fifth Avenue Landing Project would not be occupied until after the completion of project construction.

Construction

Construction of the project would result in the generation of DPM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction-related DPM emissions would occur over an approximately 8-month period during which demolition, grading, structural and site work, and paving phases would occur. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor was one year, the exposure would be 3 percent of the total exposure period used for health risk calculation.

As project construction would not be anticipated to persist for multiple years, DPM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Additionally, with ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels, off-road diesel engine retrofits, and new low-emission diesel engine types, the DPM emissions of individual equipment would be substantially reduced over the years as the project construction continues. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Operations

The project itself does not include any significant sources of TACs that would potentially affect sensitive receptors. Therefore, project operations would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Off-site Emissions – CO Hot Spots

As shown in Table 8, the maximum 1-hour and 8-hour concentrations of CO would occur at the intersection of Fifth Avenue and Harbor Drive and would be 4.0 ppm and 2.8 ppm, respectively. These concentrations are less than the CAAQS and NAAQS. All other intersections would experience shorter delays than the intersection of Fifth Avenue and Harbor Drive. Thus, it can be concluded that CO concentrations at other intersections would be less than the CO concentrations shown in Table 8. There would be no harmful concentrations of CO and localized air quality emissions would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

5. Would the project create objectionable odors affecting a substantial number of people?

The project would involve the use of diesel-powered construction equipment. Diesel exhaust may be noticeable temporarily at adjacent properties; however, construction activities would be temporary. Land uses primarily associated with operational odor impacts include wastewater treatment facilities, waste transfer stations, landfills, composting operations, refineries, and agricultural operations. The project does not propose these uses and would not include activities known to cause objectionable odors. Impact would be less than significant.

7.0 Conclusions

The primary goal of the RAQS is to reduce ozone precursor emissions. The project would be consistent with the land use designations identified in the PMP and with the growth anticipated by SANDAG. The proposed project would therefore not result in an increase in emissions that are not already accounted for in the RAQS. Thus, the project would not interfere with implementation of the RAQS or other air quality plans.

As shown in Table 6, project construction emissions would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions would be well below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Additionally, construction emissions would be temporary, intermittent, and would cease at the end of project construction.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 7, project operational emissions would not exceed the applicable regional emissions thresholds. Therefore, as project emissions are well below these limits, project operations

would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations.

The construction of the project would result in the generation of DPM emissions from the use of off-road diesel equipment; however, as project construction would not be anticipated to persist for multiple years, DPM emissions generated by project construction would not result in substantial cancer risk for any individual. Project operations would not include any significant sources of TACs that would potentially affect sensitive receptors and the project also would not develop any new sensitive receptors. Therefore, the project would not result in exposure of sensitive receptors, on-site or in the project vicinity, to substantial pollutant concentrations.

Maximum CO concentrations occur at the intersection of Fifth Avenue and Harbor Drive and would be less than the CAAQS and NAAQS. All other intersections would carry less peak hour traffic and experience shorter delays than the intersection of Fifth Avenue and Harbor Drive. Thus, it can be concluded that CO concentrations at other intersections would be less than the CO concentrations shown in Table 8. There would be no harmful concentrations of CO, and localized air quality emission would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

The project does not include industrial or agricultural uses that are typically associated with objectionable odors. The project would involve the use of diesel-powered construction equipment. Diesel exhaust may be noticeable temporarily at adjacent properties; however, construction activities would be temporary. Therefore, this impact would be less than significant.

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ATTACHMENTS

ATTACHMENT 1

CalEEMod Output – Project Emissions

Summary Book

Air Quality

Air Quality Emissions Estimate		Pollutant (lbs/day)					
		ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer	Construction	9	106	61	0	12	6
	Area	1	0	0	0	0	0
	Energy	0	0	0	0	0	0
	Mobile	23	113	368	1	106	29
Winter	Construction	9	106	61	0	12	6
	Area	1	0	0	0	0	0
	Energy	0	0	0	0	0	0
	Mobile	22	118	348	1	106	29

Unmitigated Air Quality Emissions Estimate	Pollutant (lbs/day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Daily Construction Emissions	**9**	**106**	**61**	**0**	**12**	**6**
Maximum Daily Operation Emissions	**23**	**118**	**369**	**1**	**106**	**29**

EMPS and Permanent Symphony - Air Quality Max Daily

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	519.91	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - As of 2015 SDG&E has already achieved 2020 RPS goals. Energy intensity factor revised to account for 35.2 percent renewables procurement.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With full attendance (10,000 attendees) the project will generate 3,150 round trips (6,300 one-way trips).

Area Coating - SDAPCD Rule 67.0

Energy Use - Project energy use is 1,618 kWh and 2,151 BTU per event. Modified annual rate to correspond daily event energy use. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Project would use 9,955 gallons per event (indoor use). Modified annual rate to correspond to daily indoor water use. Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Project would generate 0.76 tons per event. Modified annual genertaion to correspond to daily waste generation.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	29.75
tblEnergyUse	NT24NG	7.25	39.56
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	202.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Demolition
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	519.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2019
tblSolidWaste	SolidWasteGenerationRate	0.55	206.80
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	317.38
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	317.38
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	317.38
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	3,633,596.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.6345	106.0385	61.2659	0.1183	18.4922	4.4327	20.1751	3.4483	4.0791	7.5274	0.0000	12,152.8621	12,152.8621	3.0096	0.0000	12,194.5063
2018	5.3283	59.4111	37.6795	0.1173	2.3298	2.2663	4.5961	0.6320	2.1649	2.7969	0.0000	12,027.5538	12,027.5538	1.6242	0.0000	12,068.1586
Maximum	**8.6345**	**106.0385**	**61.2659**	**0.1183**	**18.4922**	**4.4327**	**20.1751**	**3.4483**	**4.0791**	**7.5274**	**0.0000**	**12,152.8621**	**12,152.8621**	**3.0096**	**0.0000**	**12,194.5063**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.6345	106.0385	61.2659	0.1183	8.9592	4.4327	11.5718	2.2384	4.0791	5.6917	0.0000	12,152.8621	12,152.8621	3.0096	0.0000	12,194.5063
2018	5.3283	59.4111	37.6795	0.1173	2.3298	2.2663	4.5961	0.6320	2.1649	2.7969	0.0000	12,027.5538	12,027.5538	1.6242	0.0000	12,068.1586
Maximum	**8.6345**	**106.0385**	**61.2659**	**0.1183**	**8.9592**	**4.4327**	**11.5718**	**2.2384**	**4.0791**	**5.6917**	**0.0000**	**12,152.8621**	**12,152.8621**	**3.0096**	**0.0000**	**12,194.5063**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**45.78**	**0.00**	**34.73**	**29.65**	**0.00**	**17.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Energy	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
Mobile	22.6185	112.7691	368.3513	1.2735	104.2748	1.3601	105.6348	27.8745	1.2807	29.1552		128,958.7529	128,958.7529	6.4194		129,119.2380
Total	**23.2314**	**112.9801**	**368.5312**	**1.2748**	**104.2748**	**1.3761**	**105.6509**	**27.8745**	**1.2968**	**29.1713**		**129,211.8661**	**129,211.8661**	**6.4243**	**4.6400e-003**	**129,373.8558**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Energy	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
Mobile	22.6185	112.7691	368.3513	1.2735	104.2748	1.3601	105.6348	27.8745	1.2807	29.1552		128,958.7529	128,958.7529	6.4194		129,119.2380
Total	**23.2314**	**112.9801**	**368.5312**	**1.2748**	**104.2748**	**1.3761**	**105.6509**	**27.8745**	**1.2968**	**29.1713**		**129,211.8661**	**129,211.8661**	**6.4243**	**4.6400e-003**	**129,373.8558**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74

Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.3328	0.0000	17.3328	2.6248	0.0000	2.6248			0.0000			0.0000

Off-Road	2.9456	29.8486	18.6365	0.0310		1.5575	1.5575		1.4589	1.4589		3,111.2602	3,111.2602	0.8118		3,131.5556
Total	**2.9456**	**29.8486**	**18.6365**	**0.0310**	**17.3328**	**1.5575**	**18.8903**	**2.6248**	**1.4589**	**4.0837**		**3,111.2602**	**3,111.2602**	**0.8118**		**3,131.5556**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6893	22.1738	4.4604	0.0521	1.1184	0.1251	1.2435	0.3065	0.1197	0.4262		5,645.4251	5,645.4251	0.5014		5,657.9595
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0235	0.0173	0.1930	4.6000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.8000e-004	0.0112		46.1556	46.1556	1.7100e-003		46.1984
Total	**0.7128**	**22.1911**	**4.6534**	**0.0525**	**1.1594**	**0.1254**	**1.2848**	**0.3174**	**0.1200**	**0.4373**		**5,691.5807**	**5,691.5807**	**0.5031**		**5,704.1579**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7998	0.0000	7.7998	1.1812	0.0000	1.1812			0.0000			0.0000
Off-Road	2.9456	29.8486	18.6365	0.0310		1.5575	1.5575		1.4589	1.4589	0.0000	3,111.2602	3,111.2602	0.8118		3,131.5556
Total	**2.9456**	**29.8486**	**18.6365**	**0.0310**	**7.7998**	**1.5575**	**9.3573**	**1.1812**	**1.4589**	**2.6401**	**0.0000**	**3,111.2602**	**3,111.2602**	**0.8118**		**3,131.5556**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6893	22.1738	4.4604	0.0521	1.1184	0.1251	1.2435	0.3065	0.1197	0.4262		5,645.4251	5,645.4251	0.5014		5,657.9595
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0235	0.0173	0.1930	4.6000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.8000e-004	0.0112		46.1556	46.1556	1.7100e-003		46.1984
Total	**0.7128**	**22.1911**	**4.6534**	**0.0525**	**1.1594**	**0.1254**	**1.2848**	**0.3174**	**0.1200**	**0.4373**		**5,691.5807**	**5,691.5807**	**0.5031**		**5,704.1579**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2766	0.0000	6.2766	3.3377	0.0000	3.3377			0.0000			0.0000
Off-Road	8.3897	101.1186	59.5182	0.0923		4.4041	4.4041		4.0518	4.0518		9,442.2296	9,442.2296	2.8931		9,514.5566
Total	**8.3897**	**101.1186**	**59.5182**	**0.0923**	**6.2766**	**4.4041**	**10.6808**	**3.3377**	**4.0518**	**7.3895**		**9,442.2296**	**9,442.2296**	**2.8931**		**9,514.5566**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.1508	4.8505	0.9757	0.0114	0.2446	0.0274	0.2720	0.0671	0.0262	0.0932		1,234.9367	1,234.9367	0.1097		1,237.6786
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0940	0.0693	0.7720	1.8600e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		184.6225	184.6225	6.8500e-003		184.7937
Total	**0.2448**	**4.9199**	**1.7477**	**0.0133**	**0.4089**	**0.0286**	**0.4375**	**0.1106**	**0.0273**	**0.1379**		**1,419.5592**	**1,419.5592**	**0.1165**		**1,422.4724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8245	0.0000	2.8245	1.5020	0.0000	1.5020			0.0000			0.0000
Off-Road	8.3897	101.1186	59.5182	0.0923		4.4041	4.4041		4.0518	4.0518	0.0000	9,442.2296	9,442.2296	2.8931		9,514.5566
Total	**8.3897**	**101.1186**	**59.5182**	**0.0923**	**2.8245**	**4.4041**	**7.2286**	**1.5020**	**4.0518**	**5.5538**	**0.0000**	**9,442.2296**	**9,442.2296**	**2.8931**		**9,514.5566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1508	4.8505	0.9757	0.0114	0.2446	0.0274	0.2720	0.0671	0.0262	0.0932		1,234.9367	1,234.9367	0.1097		1,237.6786
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0940	0.0693	0.7720	1.8600e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		184.6225	184.6225	6.8500e-003		184.7937
Total	**0.2448**	**4.9199**	**1.7477**	**0.0133**	**0.4089**	**0.0286**	**0.4375**	**0.1106**	**0.0273**	**0.1379**		**1,419.5592**	**1,419.5592**	**0.1165**		**1,422.4724**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6632	41.1252	28.9652	0.0517		2.5263	2.5263		2.4102	2.4102		5,065.2753	5,065.2753	1.1065		5,092.9374
Total	**4.6632**	**41.1252**	**28.9652**	**0.0517**		**2.5263**	**2.5263**		**2.4102**	**2.4102**		**5,065.2753**	**5,065.2753**	**1.1065**		**5,092.9374**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5385	17.3233	3.4847	0.0407	7.4843	0.0977	7.5820	1.8620	0.0935	1.9555		4,410.4883	4,410.4883	0.3917		4,420.2809
Vendor	0.2979	7.0582	1.9368	0.0140	0.3385	0.0658	0.4043	0.0974	0.0629	0.1604		1,495.5147	1,495.5147	0.1237		1,498.6082
Worker	0.6016	0.4438	4.9408	0.0119	1.0515	7.7400e-003	1.0592	0.2789	7.1500e-003	0.2861		1,181.5837	1,181.5837	0.0438		1,182.6799
Total	**1.4380**	**24.8252**	**10.3623**	**0.0666**	**8.8743**	**0.1712**	**9.0455**	**2.2384**	**0.1636**	**2.4020**		**7,087.5868**	**7,087.5868**	**0.5593**		**7,101.5689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6632	41.1252	28.9652	0.0517		2.5263	2.5263		2.4102	2.4102	0.0000	5,065.2753	5,065.2753	1.1065		5,092.9374
Total	**4.6632**	**41.1252**	**28.9652**	**0.0517**		**2.5263**	**2.5263**		**2.4102**	**2.4102**	**0.0000**	**5,065.2753**	**5,065.2753**	**1.1065**		**5,092.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5385	17.3233	3.4847	0.0407	7.4843	0.0977	7.5820	1.8620	0.0935	1.9555		4,410.4883	4,410.4883	0.3917		4,420.2809
Vendor	0.2979	7.0582	1.9368	0.0140	0.3385	0.0658	0.4043	0.0974	0.0629	0.1604		1,495.5147	1,495.5147	0.1237		1,498.6082
Worker	0.6016	0.4438	4.9408	0.0119	1.0515	7.7400e-003	1.0592	0.2789	7.1500e-003	0.2861		1,181.5837	1,181.5837	0.0438		1,182.6799
Total	**1.4380**	**24.8252**	**10.3623**	**0.0666**	**8.8743**	**0.1712**	**9.0455**	**2.2384**	**0.1636**	**2.4020**		**7,087.5868**	**7,087.5868**	**0.5593**		**7,101.5689**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0679	36.5274	28.2732	0.0516		2.1447	2.1447		2.0488	2.0488		5,014.3843	5,014.3843	1.0812		5,041.4137

Total	**4.0679**	**36.5274**	**28.2732**	**0.0516**		**2.1447**	**2.1447**		**2.0488**	**2.0488**		**5,014.3843**	**5,014.3843**	**1.0812**		**5,041.4137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4577	15.9037	3.2800	0.0402	0.9398	0.0626	1.0024	0.2557	0.0599	0.3155		4,373.7727	4,373.7727	0.3856		4,383.4115
Vendor	0.2579	6.5877	1.7445	0.0139	0.3385	0.0515	0.3900	0.0974	0.0493	0.1467		1,490.9493	1,490.9493	0.1182		1,493.9035
Worker	0.5448	0.3924	4.3818	0.0115	1.0515	7.5700e-003	1.0591	0.2789	6.9800e-003	0.2859		1,148.4474	1,148.4474	0.0393		1,149.4299
Total	**1.2604**	**22.8837**	**9.4063**	**0.0657**	**2.3298**	**0.1217**	**2.4515**	**0.6320**	**0.1161**	**0.7481**		**7,013.1695**	**7,013.1695**	**0.5430**		**7,026.7449**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0679	36.5274	28.2732	0.0516		2.1447	2.1447		2.0488	2.0488	0.0000	5,014.3843	5,014.3843	1.0812		5,041.4137
Total	**4.0679**	**36.5274**	**28.2732**	**0.0516**		**2.1447**	**2.1447**		**2.0488**	**2.0488**	**0.0000**	**5,014.3843**	**5,014.3843**	**1.0812**		**5,041.4137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4577	15.9037	3.2800	0.0402	0.9398	0.0626	1.0024	0.2557	0.0599	0.3155		4,373.7727	4,373.7727	0.3856		4,383.4115
Vendor	0.2579	6.5877	1.7445	0.0139	0.3385	0.0515	0.3900	0.0974	0.0493	0.1467		1,490.9493	1,490.9493	0.1182		1,493.9035
Worker	0.5448	0.3924	4.3818	0.0115	1.0515	7.5700e-003	1.0591	0.2789	6.9800e-003	0.2859		1,148.4474	1,148.4474	0.0393		1,149.4299
Total	**1.2604**	**22.8837**	**9.4063**	**0.0657**	**2.3298**	**0.1217**	**2.4515**	**0.6320**	**0.1161**	**0.7481**		**7,013.1695**	**7,013.1695**	**0.5430**		**7,026.7449**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1153**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.0639**	**0.0460**	**0.5135**	**1.3500e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**134.5837**	**134.5837**	**4.6100e-003**		**134.6988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1153**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.0639**	**0.0460**	**0.5135**	**1.3500e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**134.5837**	**134.5837**	**4.6100e-003**		**134.6988**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.0768**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1107	0.0797	0.8901	2.3400e-003	0.2136	1.5400e-003	0.2151	0.0567	1.4200e-003	0.0581		233.2784	233.2784	7.9800e-003		233.4779
Total	**0.1107**	**0.0797**	**0.8901**	**2.3400e-003**	**0.2136**	**1.5400e-003**	**0.2151**	**0.0567**	**1.4200e-003**	**0.0581**		**233.2784**	**233.2784**	**7.9800e-003**		**233.4779**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**3.0768**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1107	0.0797	0.8901	2.3400e-003	0.2136	1.5400e-003	0.2151	0.0567	1.4200e-003	0.0581		233.2784	233.2784	7.9800e-003		233.4779
Total	**0.1107**	**0.0797**	**0.8901**	**2.3400e-003**	**0.2136**	**1.5400e-003**	**0.2151**	**0.0567**	**1.4200e-003**	**0.0581**		**233.2784**	**233.2784**	**7.9800e-003**		**233.4779**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Mitigated	22.6185	112.7691	368.3513	1.2735	104.2748	1.3601	105.6348	27.8745	1.2807	29.1552		128,958.7529	128,958.7529	6.4194		129,119.2380
Unmitigated	22.6185	112.7691	368.3513	1.2735	104.2748	1.3601	105.6348	27.8745	1.2807	29.1552		128,958.7529	128,958.7529	6.4194		129,119.2380

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	6,299.99	6,299.99	6299.99	49,166,153	49,166,153
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	6,299.99	6,299.99	6,299.99	49,166,153	49,166,153

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
Parking Lot	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
Arena	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
City Park	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
NaturalGas Unmitigated	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	2151.41	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2109**	**0.1772**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.1075**	**253.1075**	**4.8500e-003**	**4.6400e-003**	**254.6116**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	2.15141	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2109**	**0.1772**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.1075**	**253.1075**	**4.8500e-003**	**4.6400e-003**	**254.6116**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Unmitigated	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Total	**0.5897**	**3.0000e-005**	**2.7200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.7800e-003**	**5.7800e-003**	**2.0000e-005**		**6.1700e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Total	**0.5897**	**3.0000e-005**	**2.7200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.7800e-003**	**5.7800e-003**	**2.0000e-005**		**6.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - Air Quality Max Daily

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	519.91	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - As of 2015 SDG&E has already achieved 2020 RPS goals. Energy intensity factor revised to account for 35.2 percent renewables procurement.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With full attendance (10,000 attendees) the project will generate 3,150 round trips (6,300 one-way trips).

Area Coating - SDAPCD Rule 67.0

Energy Use - Project energy use is 1,618 kWh and 2,151 BTU per event. Modified annual rate to correspond daily event energy use. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Project would use 9,955 gallons per event (indoor use). Modified annual rate to correspond to daily indoor water use. Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Project would generate 0.76 tons per event. Modified annual genertaion to correspond to daily waste generation.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	29.75
tblEnergyUse	NT24NG	7.25	39.56
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	202.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Demolition
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	519.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2019
tblSolidWaste	SolidWasteGenerationRate	0.55	206.80
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	317.38
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	317.38
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	317.38
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	3,633,596.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.6506	106.1052	61.3045	0.1165	18.4922	4.4332	20.1774	3.4483	4.0796	7.5279	0.0000	11,973.9379	11,973.9379	3.0135	0.0000	12,016.1097
2018	5.4230	59.6407	37.8864	0.1156	2.3298	2.2687	4.5984	0.6320	2.1672	2.7992	0.0000	11,847.2468	11,847.2468	1.6443	0.0000	11,888.3544
Maximum	**8.6506**	**106.1052**	**61.3045**	**0.1165**	**18.4922**	**4.4332**	**20.1774**	**3.4483**	**4.0796**	**7.5279**	**0.0000**	**11,973.9379**	**11,973.9379**	**3.0135**	**0.0000**	**12,016.1097**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.6506	106.1052	61.3045	0.1165	8.9592	4.4332	11.5746	2.2384	4.0796	5.6922	0.0000	11,973.9379	11,973.9379	3.0135	0.0000	12,016.1097
2018	5.4230	59.6407	37.8864	0.1156	2.3298	2.2687	4.5984	0.6320	2.1672	2.7992	0.0000	11,847.2468	11,847.2468	1.6443	0.0000	11,888.3544
Maximum	**8.6506**	**106.1052**	**61.3045**	**0.1165**	**8.9592**	**4.4332**	**11.5746**	**2.2384**	**4.0796**	**5.6922**	**0.0000**	**11,973.9379**	**11,973.9379**	**3.0135**	**0.0000**	**12,016.1097**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**45.78**	**0.00**	**34.72**	**29.65**	**0.00**	**17.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Energy	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
Mobile	22.1277	118.1030	348.0506	1.2079	104.2748	1.3643	105.6390	27.8745	1.2848	29.1593		122,404.1052	122,404.1052	6.3066		122,561.7710
Total	**22.7406**	**118.3139**	**348.2305**	**1.2092**	**104.2748**	**1.3803**	**105.6551**	**27.8745**	**1.3008**	**29.1753**		**122,657.2184**	**122,657.2184**	**6.3115**	**4.6400e-003**	**122,816.3887**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Energy	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
Mobile	22.1277	118.1030	348.0506	1.2079	104.2748	1.3643	105.6390	27.8745	1.2848	29.1593		122,404.1052	122,404.1052	6.3066		122,561.7710
Total	**22.7406**	**118.3139**	**348.2305**	**1.2092**	**104.2748**	**1.3803**	**105.6551**	**27.8745**	**1.3008**	**29.1753**		**122,657.2184**	**122,657.2184**	**6.3115**	**4.6400e-003**	**122,816.3887**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74

Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.3328	0.0000	17.3328	2.6248	0.0000	2.6248			0.0000			0.0000

Off-Road	2.9456	29.8486	18.6365	0.0310		1.5575	1.5575		1.4589	1.4589		3,111.2602	3,111.2602	0.8118		3,131.5556
Total	**2.9456**	**29.8486**	**18.6365**	**0.0310**	**17.3328**	**1.5575**	**18.8903**	**2.6248**	**1.4589**	**4.0837**		**3,111.2602**	**3,111.2602**	**0.8118**		**3,131.5556**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7074	22.4397	4.7987	0.0513	1.1184	0.1274	1.2457	0.3065	0.1219	0.4284		5,555.3348	5,555.3348	0.5207		5,568.3533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0265	0.0195	0.1842	4.4000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.8000e-004	0.0112		43.3359	43.3359	1.6300e-003		43.3768
Total	**0.7339**	**22.4591**	**4.9828**	**0.0517**	**1.1594**	**0.1277**	**1.2871**	**0.3174**	**0.1221**	**0.4395**		**5,598.6707**	**5,598.6707**	**0.5224**		**5,611.7300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7998	0.0000	7.7998	1.1812	0.0000	1.1812			0.0000			0.0000
Off-Road	2.9456	29.8486	18.6365	0.0310		1.5575	1.5575		1.4589	1.4589	0.0000	3,111.2602	3,111.2602	0.8118		3,131.5556
Total	**2.9456**	**29.8486**	**18.6365**	**0.0310**	**7.7998**	**1.5575**	**9.3573**	**1.1812**	**1.4589**	**2.6401**	**0.0000**	**3,111.2602**	**3,111.2602**	**0.8118**		**3,131.5556**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7074	22.4397	4.7987	0.0513	1.1184	0.1274	1.2457	0.3065	0.1219	0.4284		5,555.3348	5,555.3348	0.5207		5,568.3533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0265	0.0195	0.1842	4.4000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.8000e-004	0.0112		43.3359	43.3359	1.6300e-003		43.3768
Total	**0.7339**	**22.4591**	**4.9828**	**0.0517**	**1.1594**	**0.1277**	**1.2871**	**0.3174**	**0.1221**	**0.4395**		**5,598.6707**	**5,598.6707**	**0.5224**		**5,611.7300**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2766	0.0000	6.2766	3.3377	0.0000	3.3377			0.0000			0.0000
Off-Road	8.3897	101.1186	59.5182	0.0923		4.4041	4.4041		4.0518	4.0518		9,442.2296	9,442.2296	2.8931		9,514.5566
Total	**8.3897**	**101.1186**	**59.5182**	**0.0923**	**6.2766**	**4.4041**	**10.6808**	**3.3377**	**4.0518**	**7.3895**		**9,442.2296**	**9,442.2296**	**2.8931**		**9,514.5566**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.1547	4.9087	1.0497	0.0112	0.2446	0.0279	0.2725	0.0671	0.0267	0.0937		1,215.2295	1,215.2295	0.1139		1,218.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1061	0.0779	0.7366	1.7400e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		173.3437	173.3437	6.5400e-003		173.5071
Total	**0.2609**	**4.9866**	**1.7863**	**0.0130**	**0.4089**	**0.0291**	**0.4380**	**0.1106**	**0.0278**	**0.1384**		**1,388.5731**	**1,388.5731**	**0.1205**		**1,391.5844**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8245	0.0000	2.8245	1.5020	0.0000	1.5020			0.0000			0.0000
Off-Road	8.3897	101.1186	59.5182	0.0923		4.4041	4.4041		4.0518	4.0518	0.0000	9,442.2296	9,442.2296	2.8931		9,514.5566
Total	**8.3897**	**101.1186**	**59.5182**	**0.0923**	**2.8245**	**4.4041**	**7.2286**	**1.5020**	**4.0518**	**5.5538**	**0.0000**	**9,442.2296**	**9,442.2296**	**2.8931**		**9,514.5566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.9087	1.0497	0.0112	0.2446	0.0279	0.2725	0.0671	0.0267	0.0937		1,215.2295	1,215.2295	0.1139		1,218.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1061	0.0779	0.7366	1.7400e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		173.3437	173.3437	6.5400e-003		173.5071
Total	**0.2609**	**4.9866**	**1.7863**	**0.0130**	**0.4089**	**0.0291**	**0.4380**	**0.1106**	**0.0278**	**0.1384**		**1,388.5731**	**1,388.5731**	**0.1205**		**1,391.5844**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6632	41.1252	28.9652	0.0517		2.5263	2.5263		2.4102	2.4102		5,065.2753	5,065.2753	1.1065		5,092.9374
Total	**4.6632**	**41.1252**	**28.9652**	**0.0517**		**2.5263**	**2.5263**		**2.4102**	**2.4102**		**5,065.2753**	**5,065.2753**	**1.1065**		**5,092.9374**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5526	17.5310	3.7490	0.0400	7.4843	0.0995	7.5838	1.8620	0.0952	1.9572		4,340.1053	4,340.1053	0.4068		4,350.2760
Vendor	0.3100	7.0802	2.1366	0.0137	0.3385	0.0668	0.4053	0.0974	0.0639	0.1614		1,459.1579	1,459.1579	0.1317		1,462.4508
Worker	0.6792	0.4984	4.7144	0.0112	1.0515	7.7400e-003	1.0592	0.2789	7.1500e-003	0.2861		1,109.3994	1,109.3994	0.0419		1,110.4455
Total	**1.5419**	**25.1095**	**10.6000**	**0.0649**	**8.8743**	**0.1741**	**9.0483**	**2.2384**	**0.1663**	**2.4047**		**6,908.6626**	**6,908.6626**	**0.5804**		**6,923.1723**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6632	41.1252	28.9652	0.0517		2.5263	2.5263		2.4102	2.4102	0.0000	5,065.2753	5,065.2753	1.1065		5,092.9374
Total	**4.6632**	**41.1252**	**28.9652**	**0.0517**		**2.5263**	**2.5263**		**2.4102**	**2.4102**	**0.0000**	**5,065.2753**	**5,065.2753**	**1.1065**		**5,092.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5526	17.5310	3.7490	0.0400	7.4843	0.0995	7.5838	1.8620	0.0952	1.9572		4,340.1053	4,340.1053	0.4068		4,350.2760
Vendor	0.3100	7.0802	2.1366	0.0137	0.3385	0.0668	0.4053	0.0974	0.0639	0.1614		1,459.1579	1,459.1579	0.1317		1,462.4508
Worker	0.6792	0.4984	4.7144	0.0112	1.0515	7.7400e-003	1.0592	0.2789	7.1500e-003	0.2861		1,109.3994	1,109.3994	0.0419		1,110.4455
Total	**1.5419**	**25.1095**	**10.6000**	**0.0649**	**8.8743**	**0.1741**	**9.0483**	**2.2384**	**0.1663**	**2.4047**		**6,908.6626**	**6,908.6626**	**0.5804**		**6,923.1723**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0679	36.5274	28.2732	0.0516		2.1447	2.1447		2.0488	2.0488		5,014.3843	5,014.3843	1.0812		5,041.4137

Total	**4.0679**	**36.5274**	**28.2732**	**0.0516**		**2.1447**	**2.1447**		**2.0488**	**2.0488**		**5,014.3843**	**5,014.3843**	**1.0812**		**5,041.4137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4708	16.0738	3.5266	0.0396	0.9398	0.0640	1.0039	0.2557	0.0613	0.3169		4,301.1938	4,301.1938	0.4000		4,311.1937
Vendor	0.2688	6.5989	1.9300	0.0136	0.3385	0.0524	0.3909	0.0974	0.0501	0.1476		1,453.4897	1,453.4897	0.1258		1,456.6340
Worker	0.6155	0.4407	4.1565	0.0108	1.0515	7.5700e-003	1.0591	0.2789	6.9800e-003	0.2859		1,078.1789	1,078.1789	0.0374		1,079.1130
Total	**1.3550**	**23.1133**	**9.6132**	**0.0640**	**2.3298**	**0.1240**	**2.4538**	**0.6320**	**0.1184**	**0.7504**		**6,832.8625**	**6,832.8625**	**0.5631**		**6,846.9407**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0679	36.5274	28.2732	0.0516		2.1447	2.1447		2.0488	2.0488	0.0000	5,014.3843	5,014.3843	1.0812		5,041.4137
Total	**4.0679**	**36.5274**	**28.2732**	**0.0516**		**2.1447**	**2.1447**		**2.0488**	**2.0488**	**0.0000**	**5,014.3843**	**5,014.3843**	**1.0812**		**5,041.4137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4708	16.0738	3.5266	0.0396	0.9398	0.0640	1.0039	0.2557	0.0613	0.3169		4,301.1938	4,301.1938	0.4000		4,311.1937
Vendor	0.2688	6.5989	1.9300	0.0136	0.3385	0.0524	0.3909	0.0974	0.0501	0.1476		1,453.4897	1,453.4897	0.1258		1,456.6340
Worker	0.6155	0.4407	4.1565	0.0108	1.0515	7.5700e-003	1.0591	0.2789	6.9800e-003	0.2859		1,078.1789	1,078.1789	0.0374		1,079.1130
Total	**1.3550**	**23.1133**	**9.6132**	**0.0640**	**2.3298**	**0.1240**	**2.4538**	**0.6320**	**0.1184**	**0.7504**		**6,832.8625**	**6,832.8625**	**0.5631**		**6,846.9407**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1153**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.0721**	**0.0516**	**0.4871**	**1.2700e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**126.3491**	**126.3491**	**4.3800e-003**		**126.4586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1153**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**	**0.0000**	**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.0721**	**0.0516**	**0.4871**	**1.2700e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**126.3491**	**126.3491**	**4.3800e-003**		**126.4586**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.0768**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1250	0.0895	0.8443	2.2000e-003	0.2136	1.5400e-003	0.2151	0.0567	1.4200e-003	0.0581		219.0051	219.0051	7.5900e-003		219.1948
Total	**0.1250**	**0.0895**	**0.8443**	**2.2000e-003**	**0.2136**	**1.5400e-003**	**0.2151**	**0.0567**	**1.4200e-003**	**0.0581**		**219.0051**	**219.0051**	**7.5900e-003**		**219.1948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**3.0768**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1250	0.0895	0.8443	2.2000e-003	0.2136	1.5400e-003	0.2151	0.0567	1.4200e-003	0.0581		219.0051	219.0051	7.5900e-003		219.1948
Total	**0.1250**	**0.0895**	**0.8443**	**2.2000e-003**	**0.2136**	**1.5400e-003**	**0.2151**	**0.0567**	**1.4200e-003**	**0.0581**		**219.0051**	**219.0051**	**7.5900e-003**		**219.1948**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Mitigated	22.1277	118.1030	348.0506	1.2079	104.2748	1.3643	105.6390	27.8745	1.2848	29.1593		122,404.1052	122,404.1052	6.3066		122,561.7710
Unmitigated	22.1277	118.1030	348.0506	1.2079	104.2748	1.3643	105.6390	27.8745	1.2848	29.1593		122,404.1052	122,404.1052	6.3066		122,561.7710

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	6,299.99	6,299.99	6299.99	49,166,153	49,166,153
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	6,299.99	6,299.99	6,299.99	49,166,153	49,166,153

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
Parking Lot	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
Arena	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357
City Park	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
NaturalGas Unmitigated	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	2151.41	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2109**	**0.1772**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.1075**	**253.1075**	**4.8500e-003**	**4.6400e-003**	**254.6116**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Arena	2.15141	0.0232	0.2109	0.1772	1.2700e-003		0.0160	0.0160		0.0160	0.0160		253.1075	253.1075	4.8500e-003	4.6400e-003	254.6116
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0232**	**0.2109**	**0.1772**	**1.2700e-003**		**0.0160**	**0.0160**		**0.0160**	**0.0160**		**253.1075**	**253.1075**	**4.8500e-003**	**4.6400e-003**	**254.6116**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Unmitigated	0.5897	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Total	**0.5897**	**3.0000e-005**	**2.7200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.7800e-003**	**5.7800e-003**	**2.0000e-005**		**6.1700e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.7800e-003	5.7800e-003	2.0000e-005		6.1700e-003
Total	**0.5897**	**3.0000e-005**	**2.7200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.7800e-003**	**5.7800e-003**	**2.0000e-005**		**6.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT 2

CALINE4 Output

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	CO_RUNEX	Weighted CO RUNEX
San Diego	2035	All Other B	Aggregate	5	DSL	316.8647	1.388358	0.002278
San Diego	2035	LDA	Aggregate	5	GAS	79511.18	0.837413	0.344796
San Diego	2035	LDA	Aggregate	5	DSL	1092.308	2.602705	0.014722
San Diego	2035	LDT1	Aggregate	5	GAS	5549.609	0.814114	0.023396
San Diego	2035	LDT1	Aggregate	5	DSL	3.078606	2.673996	4.26E-05
San Diego	2035	LDT2	Aggregate	5	GAS	26901.35	0.752283	0.104797
San Diego	2035	LDT2	Aggregate	5	DSL	58.99775	2.561122	0.000782
San Diego	2035	LHD1	Aggregate	5	GAS	9794.73	0.409796	0.020785
San Diego	2035	LHD1	Aggregate	5	DSL	12433.49	3.47477	0.223725
San Diego	2035	LHD2	Aggregate	5	GAS	4027.811	0.225499	0.004703
San Diego	2035	LHD2	Aggregate	5	DSL	6122.713	3.305766	0.104812
San Diego	2035	MCY	Aggregate	5	GAS	845.4769	42.41105	0.185684
San Diego	2035	MDV	Aggregate	5	GAS	14358.44	0.927324	0.06895
San Diego	2035	MDV	Aggregate	5	DSL	399.6215	2.919096	0.006041
San Diego	2035	MH	Aggregate	5	GAS	443.219	0.645255	0.001481
San Diego	2035	MH	Aggregate	5	DSL	116.6852	2.190991	0.001324
San Diego	2035	Motor Coa	Aggregate	5	DSL	266.2872	2.981075	0.004111
San Diego	2035	OBUS	Aggregate	5	GAS	877.2776	0.418254	0.0019
San Diego	2035	SBUS	Aggregate	5	GAS	270.0364	0.346152	0.000484
San Diego	2035	SBUS	Aggregate	5	DSL	465.2393	1.241517	0.002991
San Diego	2035	T6 Ag	Aggregate	5	DSL	31.59683	1.531361	0.000251
San Diego	2035	T6 CAIRP	Aggregate	5	DSL	21.50599	1.19701	0.000133
San Diego	2035	T6 CAIRP	Aggregate	5	DSL	66.01808	1.132987	0.000387
San Diego	2035	T6 instate	Aggregate	5	DSL	361.6419	1.365178	0.002557
San Diego	2035	T6 instate	Aggregate	5	DSL	971.5114	1.247572	0.006276
San Diego	2035	T6 instate	Aggregate	5	DSL	2951.597	1.329682	0.020324
San Diego	2035	T6 instate	Aggregate	5	DSL	7434.629	1.243923	0.04789
San Diego	2035	T6 OOS he	Aggregate	5	DSL	12.32212	1.197946	7.64E-05
San Diego	2035	T6 OOS sr	Aggregate	5	DSL	37.82588	1.132987	0.000222
San Diego	2035	T6 Public	Aggregate	5	DSL	329.2497	1.011364	0.001724
San Diego	2035	T6 utility	Aggregate	5	DSL	46.87437	0.936612	0.000227
San Diego	2035	T6TS	Aggregate	5	GAS	1596.423	0.431598	0.003568
San Diego	2035	T7 Ag	Aggregate	5	DSL	10.59596	4.025097	0.000221
San Diego	2035	T7 CAIRP	Aggregate	5	DSL	1483.135	3.356473	0.025779
San Diego	2035	T7 CAIRP	Aggregate	5	DSL	115.6573	3.434709	0.002057
San Diego	2035	T7 NNOOS	Aggregate	5	DSL	1839.089	2.935452	0.027956
San Diego	2035	T7 NOOS	Aggregate	5	DSL	585.8379	3.3585	0.010189
San Diego	2035	T7 other p	Aggregate	5	DSL	427.3083	3.660461	0.0081
San Diego	2035	T7 POLA	Aggregate	5	DSL	259.1967	3.675011	0.004933
San Diego	2035	T7 Public	Aggregate	5	DSL	111.839	2.326786	0.001348
San Diego	2035	T7 Single	Aggregate	5	DSL	742.2639	2.853215	0.010967
San Diego	2035	T7 single c	Aggregate	5	DSL	299.1903	2.842402	0.004404
San Diego	2035	T7 SWCV	Aggregate	5	DSL	4725.821	41.77834	1.022405
San Diego	2035	T7 tractor	Aggregate	5	DSL	2249.318	3.481905	0.040557
San Diego	2035	T7 tractor c	Aggregate	5	DSL	223.0685	3.579906	0.004135
San Diego	2035	T7 utility	Aggregate	5	DSL	10.85566	2.173216	0.000122
San Diego	2035	T7IS	Aggregate	5	GAS	90.45536	54.33993	0.025454
San Diego	2035	UBUS	Aggregate	5	GAS	1055.007	0.934153	0.005104
San Diego	2035	UBUS	Aggregate	5	DSL	1166.068	39.76882	0.240138
						193110.3		2.635

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 400. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  2.8 PPM
     SIGTH=    5. DEGREES       TEMP=  9.4 DEGREE (C)
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   II.  LINK VARIABLES

       LINK      *  LINK COORDINATES (M)   *              EF     H     W
    DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * ***** ***** ***** ***** *  AG   1062   2.6    0.0   9.0
 B. Link_2       * ***** ***** ***** ***** *  AG   1062   2.6    0.0   9.0
 C. Link_3       * ***** ***** ***** ***** *  AG   1062   2.6    0.0   9.0
```

D. Link_4	*	*****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
E. Link_5	*	*****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
F. Link_6	*	*****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
G. Link_7	*	*****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
H. Link_8	*	*****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
I. Link_9	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
J. Link_10	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
K. Link_11	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
L. Link_12	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
M. Link_13	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
N. Link_14	*	*****	*****	*****	*****	*	AG	1533	2.6	0.0	7.0
O. Link_15	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
P. Link_16	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
Q. Link_17	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
R. Link_18	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
S. Link_19	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
T. Link_20	*	*****	*****	*****	*****	*	AG	791	2.6	0.0	9.0
U. Link_21	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
V. Link_22	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
W. Link_23	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
X. Link_24	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
Y. Link_25	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
Z. Link_26	*	*****	*****	*****	*****	*	AG	1686	2.6	0.0	7.0
a. Link_27	*	*****	*****	*****	*****	*	AG	1376	2.6	0.0	7.0
b. Link_28	*	*****	*****	*****	*****	*	AG	1376	2.6	0.0	7.0
c. Link_29	*	*****	*****	*****	*****	*	AG	10	2.6	0.0	7.0
d. Link_30	*	*****	*****	*****	*****	*	AG	10	2.6	0.0	7.0
e. Link_31	*	*****	*****	*****	*****	*	AG	10	2.6	0.0	7.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R_001	484799	******	1.8
2. R_002	484780	******	1.8
3. R_003	484765	******	1.8
4. R_004	484827	******	1.8
5. R_005	484814	******	1.8
6. R_006	484798	******	1.8
7. G1_1	484730	******	1.8
8. G1_2	484730	******	1.8
9. G1_3	484730	******	1.8
10. G1_4	484730	******	1.8
11. G1_5	484730	******	1.8
12. G1_6	484730	******	1.8
13. G1_7	484730	******	1.8
14. G1_8	484730	******	1.8
15. G1_9	484730	******	1.8
16. G1_10	484730	******	1.8
17. G1_11	484730	******	1.8
18. G1_12	484730	******	1.8
19. G1_13	484730	******	1.8
20. G1_14	484730	******	1.8
21. G1_15	484730	******	1.8
22. G1_16	484730	******	1.8
23. G1_17	484730	******	1.8
24. G1_18	484730	******	1.8
25. G1_19	484730	******	1.8
26. G1_20	484730	******	1.8
27. G1_21	484730	******	1.8
28. G1_22	484738	******	1.8
29. G1_23	484738	******	1.8
30. G1_24	484738	******	1.8
31. G1_25	484738	******	1.8
32. G1_26	484738	******	1.8
33. G1_27	484738	******	1.8
34. G1_28	484738	******	1.8
35. G1_29	484738	******	1.8
36. G1_30	484738	******	1.8
37. G1_31	484738	******	1.8
38. G1_32	484738	******	1.8
39. G1_33	484738	******	1.8
40. G1_34	484738	******	1.8
41. G1_35	484738	******	1.8
42. G1_36	484738	******	1.8
43. G1_37	484738	******	1.8
44. G1_38	484738	******	1.8
45. G1_39	484738	******	1.8

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 46. G1_40    * 484738 ******   1.8
 47. G1_41    * 484738 ******   1.8
 48. G1_42    * 484738 ******   1.8
 49. G1_43    * 484745 ******   1.8
 50. G1_44    * 484745 ******   1.8
 51. G1_45    * 484745 ******   1.8
 52. G1_46    * 484745 ******   1.8
 53. G1_47    * 484745 ******   1.8
 54. G1_48    * 484745 ******   1.8
 55. G1_49    * 484745 ******   1.8
 56. G1_50    * 484745 ******   1.8
 57. G1_51    * 484745 ******   1.8
 58. G1_52    * 484745 ******   1.8
 59. G1_53    * 484745 ******   1.8
 60. G1_54    * 484745 ******   1.8
 61. G1_55    * 484745 ******   1.8
 62. G1_56    * 484745 ******   1.8


1 ___________________________________________________________________________

            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   4

                 JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
                 RUN: CALINE4 RUN      (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

              *       * PRED  *                CONC/LINK
              *  BRG  * CONC  *                  (PPM)
  RECEPTOR    * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*----------------------------------------
 1. R_001     *    6. *   3.3 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
 2. R_002     *  112. *   3.3 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 3. R_003     *  113. *   3.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 4. R_004     *  225. *   3.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
 5. R_005     *  204. *   3.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
 6. R_006     *  179. *   3.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 7. G1_1      *   45. *   3.0 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
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8.	G1_2	*	49.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.	G1_3	*	53.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.	G1_4	*	57.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.	G1_5	*	63.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.	G1_6	*	69.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.	G1_7	*	77.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.	G1_8	*	82.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.	G1_9	*	95.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.	G1_10	*	104.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.	G1_11	*	108.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.	G1_12	*	111.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.	G1_13	*	112.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.	G1_14	*	114.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21.	G1_15	*	116.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.	G1_16	*	119.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.	G1_17	*	122.	*	3.8	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.	G1_18	*	124.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.	G1_19	*	127.	*	4.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26.	G1_20	*	131.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	G1_21	*	132.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	G1_22	*	41.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.	G1_23	*	45.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.	G1_24	*	49.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31.	G1_25	*	54.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.	G1_26	*	60.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33.	G1_27	*	66.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34.	G1_28	*	76.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.	G1_29	*	82.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.	G1_30	*	98.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.	G1_31	*	107.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.	G1_32	*	109.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.	G1_33	*	110.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.	G1_34	*	112.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.	G1_35	*	115.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.	G1_36	*	118.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.	G1_37	*	121.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44.	G1_38	*	124.	*	3.8	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.	G1_39	*	125.	*	4.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.	G1_40	*	130.	*	3.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.	G1_41	*	132.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.	G1_42	*	134.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49.	G1_43	*	37.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50.	G1_44	*	41.	*	3.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
51.	G1_45	*	45.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.	G1_46	*	50.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.	G1_47	*	56.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.	G1_48	*	63.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.	G1_49	*	73.	*	3.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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 56. G1_50    *   81. *   3.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 57. G1_51    *  102. *   3.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 58. G1_52    *  107. *   3.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 59. G1_53    *  110. *   3.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 60. G1_54    *  111. *   3.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 61. G1_55    *  114. *   3.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 62. G1_56    *  116. *   3.3 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0


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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 5

JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

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                *                                                        CONC/LINK
   RECEPTOR     *   I    J    K    L    M    N    O    P    Q    R    S    T    U    V
   W    X    Y    Z    a    b    c    d    e

------------*-------------------------------------------------------------------------
-------------------------------------------
  1. R_001    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.0
  2. R_002    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
  3. R_003    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
  4. R_004    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0
  5. R_005    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0
  6. R_006    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0
  7. G1_1     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
  8. G1_2     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
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```
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
  9. G1_3     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 10. G1_4     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 11. G1_5     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 12. G1_6     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 13. G1_7     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 14. G1_8     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 15. G1_9     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 16. G1_10    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 17. G1_11    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 18. G1_12    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 19. G1_13    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 20. G1_14    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 21. G1_15    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 22. G1_16    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 23. G1_17    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.2  0.1  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 24. G1_18    *  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 25. G1_19    *  0.1  0.2  0.7  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 26. G1_20    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 27. G1_21    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 28. G1_22    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 29. G1_23    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 30. G1_24    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 31. G1_25    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 32. G1_26    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
```

```
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 33. G1_27    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 34. G1_28    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 35. G1_29    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 36. G1_30    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 37. G1_31    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 38. G1_32    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 39. G1_33    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 40. G1_34    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 41. G1_35    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0
 42. G1_36    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0
 43. G1_37    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.3  0.1  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 44. G1_38    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.2  0.1  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 45. G1_39    *  0.1  0.2  0.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 46. G1_40    *  0.1  0.2  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 47. G1_41    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 48. G1_42    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 49. G1_43    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 50. G1_44    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 51. G1_45    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0
 52. G1_46    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 53. G1_47    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 54. G1_48    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 55. G1_49    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 56. G1_50    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 57. G1_51    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 58. G1_52    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 59. G1_53    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 60. G1_54    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 61. G1_55    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 62. G1_56    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 400. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  2.8 PPM
     SIGTH=    5. DEGREES       TEMP=  9.4 DEGREE (C)
```



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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. Link_1       * ***** ***** ***** ***** *  AG   2654   2.6    0.0   9.0
B. Link_2       * ***** ***** ***** ***** *  AG   2654   2.6    0.0   9.0
C. Link_3       * ***** ***** ***** ***** *  AG   2654   2.6    0.0   9.0
```

D.	Link_4	* *****	*****	*****	*****	*	AG	2654	2.6	0.0	9.0
E.	Link_5	* *****	*****	*****	*****	*	AG	2654	2.6	0.0	9.0
F.	Link_6	* *****	*****	*****	*****	*	AG	2654	2.6	0.0	9.0
G.	Link_7	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
H.	Link_8	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
I.	Link_9	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
J.	Link_10	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
K.	Link_11	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
L.	Link_12	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
M.	Link_13	* *****	*****	*****	*****	*	AG	943	2.6	0.0	8.0
N.	Link_14	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
O.	Link_15	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
P.	Link_16	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
Q.	Link_17	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
R.	Link_18	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
S.	Link_19	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
T.	Link_20	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
U.	Link_21	* *****	*****	*****	*****	*	AG	1062	2.6	0.0	9.0
V.	Link_22	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
W.	Link_23	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
X.	Link_24	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
Y.	Link_25	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
Z.	Link_26	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
a.	Link_27	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
b.	Link_28	* *****	*****	*****	*****	*	AG	1686	2.6	0.0	9.0
c.	Link_29	* *****	*****	*****	*****	*	AG	2671	2.6	0.0	6.0
d.	Link_30	* *****	*****	*****	*****	*	AG	2671	2.6	0.0	6.0
e.	Link_31	* *****	*****	*****	*****	*	AG	2671	2.6	0.0	6.0
f.	Link_32	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
g.	Link_33	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
h.	Link_34	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
i.	Link_35	* *****	*****	*****	*****	*	AG	180	2.6	0.0	8.0
j.	Link_36	* *****	*****	*****	*****	*	AG	180	2.6	0.0	8.0
k.	Link_37	* *****	*****	*****	*****	*	AG	180	2.6	0.0	8.0
l.	Link_38	* *****	*****	*****	*****	*	AG	180	2.6	0.0	8.0
m.	Link_39	* *****	*****	*****	*****	*	AG	156	2.6	0.0	6.0
n.	Link_40	* *****	*****	*****	*****	*	AG	156	2.6	0.0	6.0
o.	Link_41	* *****	*****	*****	*****	*	AG	156	2.6	0.0	6.0
p.	Link_42	* *****	*****	*****	*****	*	AG	1427	2.6	0.0	8.0
q.	Link_43	* *****	*****	*****	*****	*	AG	1427	2.6	0.0	8.0
r.	Link_44	* *****	*****	*****	*****	*	AG	1427	2.6	0.0	8.0
s.	Link_45	* *****	*****	*****	*****	*	AG	1427	2.6	0.0	8.0
t.	Link_46	* *****	*****	*****	*****	*	AG	1427	2.6	0.0	8.0
u.	Link_47	* *****	*****	*****	*****	*	AG	1244	2.6	0.0	6.0
v.	Link_48	* *****	*****	*****	*****	*	AG	1244	2.6	0.0	6.0
w.	Link_49	* *****	*****	*****	*****	*	AG	1244	2.6	0.0	6.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   3

     JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
     RUN: CALINE4 RUN      (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R_001	484958	******	1.8
2. R_002	484946	******	1.8
3. R_003	484936	******	1.8
4. R_004	484948	******	1.8
5. R_005	484971	******	1.8
6. G1_1	484900	******	1.8
7. G1_2	484900	******	1.8
8. G1_3	484900	******	1.8
9. G1_4	484900	******	1.8
10. G1_5	484900	******	1.8
11. G1_6	484900	******	1.8
12. G1_7	484900	******	1.8
13. G1_8	484900	******	1.8
14. G1_9	484900	******	1.8
15. G1_10	484900	******	1.8
16. G1_11	484900	******	1.8
17. G1_12	484900	******	1.8
18. G1_13	484900	******	1.8
19. G1_14	484900	******	1.8
20. G1_15	484900	******	1.8
21. G1_16	484900	******	1.8
22. G1_17	484900	******	1.8
23. G1_18	484900	******	1.8
24. G1_19	484900	******	1.8
25. G1_20	484900	******	1.8
26. G1_21	484900	******	1.8
27. G1_22	484907	******	1.8

```
 28. G1_23    * 484907 ******   1.8
 29. G1_24    * 484907 ******   1.8
 30. G1_25    * 484907 ******   1.8
 31. G1_26    * 484907 ******   1.8
 32. G1_27    * 484907 ******   1.8
 33. G1_28    * 484907 ******   1.8
 34. G1_29    * 484907 ******   1.8
 35. G1_30    * 484907 ******   1.8
 36. G1_31    * 484907 ******   1.8
 37. G1_32    * 484907 ******   1.8
 38. G1_33    * 484907 ******   1.8
 39. G1_34    * 484907 ******   1.8
 40. G1_35    * 484907 ******   1.8
 41. G1_36    * 484907 ******   1.8
 42. G1_37    * 484907 ******   1.8
 43. G1_38    * 484907 ******   1.8
 44. G1_39    * 484907 ******   1.8
 45. G1_40    * 484907 ******   1.8
 46. G1_41    * 484907 ******   1.8
 47. G1_42    * 484907 ******   1.8
 48. G1_43    * 484913 ******   1.8
 49. G1_44    * 484913 ******   1.8
 50. G1_45    * 484913 ******   1.8
 51. G1_46    * 484913 ******   1.8
 52. G1_47    * 484913 ******   1.8
 53. G1_48    * 484913 ******   1.8
 54. G1_49    * 484913 ******   1.8
 55. G1_50    * 484913 ******   1.8
 56. G1_51    * 484913 ******   1.8
 57. G1_52    * 484913 ******   1.8
 58. G1_53    * 484913 ******   1.8
 59. G1_54    * 484913 ******   1.8
 60. G1_55    * 484913 ******   1.8
 61. G1_56    * 484913 ******   1.8
 62. G1_57    * 484913 ******   1.8


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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   4
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JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	23.	4.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0
2. R_002	48.	3.9	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0
3. R_003	59.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. R_004	130.	4.0	0.0	0.0	0.1	0.1	0.3	0.2	0.0	0.0
5. R_005	268.	3.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
6. G1_1	42.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
7. G1_2	44.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
8. G1_3	46.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. G1_4	49.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. G1_5	52.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. G1_6	55.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. G1_7	59.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13. G1_8	62.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. G1_9	66.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. G1_10	69.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. G1_11	72.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. G1_12	76.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. G1_13	76.	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19. G1_14	79.	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. G1_15	109.	3.5	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
21. G1_16	115.	3.9	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
22. G1_17	120.	4.4	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0
23. G1_18	125.	4.7	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0
24. G1_19	126.	4.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0
25. G1_20	129.	3.6	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
26. G1_21	130.	3.5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
27. G1_22	39.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
28. G1_23	41.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
29. G1_24	44.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
30. G1_25	47.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
31. G1_26	50.	3.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
32. G1_27	53.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33. G1_28	55.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34. G1_29	59.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35. G1_30	63.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36. G1_31	69.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37. G1_32	72.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

38.	G1_33	*	74.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.	G1_34	*	76.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.	G1_35	*	79.	*	3.5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.	G1_36	*	111.	*	3.7	*	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
42.	G1_37	*	119.	*	4.3	*	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0
43.	G1_38	*	123.	*	4.7	*	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
44.	G1_39	*	125.	*	4.2	*	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
45.	G1_40	*	129.	*	3.7	*	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
46.	G1_41	*	130.	*	3.5	*	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
47.	G1_42	*	132.	*	3.4	*	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
48.	G1_43	*	36.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
49.	G1_44	*	38.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
50.	G1_45	*	41.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
51.	G1_46	*	44.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
52.	G1_47	*	47.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
53.	G1_48	*	50.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
54.	G1_49	*	53.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.	G1_50	*	57.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.	G1_51	*	61.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.	G1_52	*	67.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58.	G1_53	*	71.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59.	G1_54	*	73.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.	G1_55	*	76.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.	G1_56	*	106.	*	3.6	*	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0
62.	G1_57	*	118.	*	4.2	*	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0

1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 5

JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

		CONC/LINK												
RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T	U	V

```
   W    X    Y    Z    a    b    c    d    e    f    g    h    i    j    k    l    m
   n    o    p    q    r    s    t    u    v    w

------------*-------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------
  1. R_001    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.3  0.2  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0
  2. R_002    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.4  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
  3. R_003    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.2  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
  4. R_004    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  5. R_005    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.4  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  6. G1_1     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  7. G1_2     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  8. G1_3     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  9. G1_4     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 10. G1_5     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 11. G1_6     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 12. G1_7     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 13. G1_8     *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 14. G1_9     *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
```

```
 15. G1_10    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 16. G1_11    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 17. G1_12    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 18. G1_13    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 19. G1_14    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0
 20. G1_15    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 21. G1_16    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.1  0.3  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 22. G1_17    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.4  0.3  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 23. G1_18    *  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.2  0.3  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.4  0.2  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 24. G1_19    *  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.2  0.3  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 25. G1_20    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 26. G1_21    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 27. G1_22    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 28. G1_23    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 29. G1_24    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 30. G1_25    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
 31. G1_26    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 32. G1_27    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 33. G1_28    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 34. G1_29    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 35. G1_30    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 36. G1_31    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 37. G1_32    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 38. G1_33    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 39. G1_34    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0
 40. G1_35    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 41. G1_36    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.3  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 42. G1_37    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.2  0.5  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 43. G1_38    *  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.2  0.1  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.3  0.3  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 44. G1_39    *  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.2  0.2  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 45. G1_40    *  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 46. G1_41    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
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 47. G1_42    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 48. G1_43    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 49. G1_44    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 50. G1_45    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 51. G1_46    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 52. G1_47    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 53. G1_48    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 54. G1_49    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 55. G1_50    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 56. G1_51    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 57. G1_52    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 58. G1_53    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 59. G1_54    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 60. G1_55    *  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0
 61. G1_56    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.2  0.2  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 62. G1_57    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.6  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 400. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  2.8 PPM
     SIGTH=    5. DEGREES       TEMP=  9.4 DEGREE (C)
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
              RUN: CALINE4 RUN      (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


   II.  LINK VARIABLES

       LINK      *  LINK COORDINATES (M)   *              EF     H     W
    DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. Link_1       * ***** ***** ***** ***** *  AG    745   2.6    0.0   8.0
 B. Link_2       * ***** ***** ***** ***** *  AG    745   2.6    0.0   8.0
 C. Link_3       * ***** ***** ***** ***** *  AG    745   2.6    0.0  15.0
```

D.	Link_4	* *****	*****	*****	*****	*	AG	745	2.6	0.0	15.0
E.	Link_5	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	8.0
F.	Link_6	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	9.0
G.	Link_7	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	10.0
H.	Link_8	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	11.0
I.	Link_9	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	12.0
J.	Link_10	* *****	*****	*****	*****	*	AG	2771	2.6	0.0	12.0
K.	Link_11	* *****	*****	*****	*****	*	AG	1172	2.6	0.0	9.0
L.	Link_12	* *****	*****	*****	*****	*	AG	1172	2.6	0.0	12.0
M.	Link_13	* *****	*****	*****	*****	*	AG	1172	2.6	0.0	14.0
N.	Link_14	* *****	*****	*****	*****	*	AG	1172	2.6	0.0	16.0
O.	Link_15	* *****	*****	*****	*****	*	AG	655	2.6	0.0	15.0
P.	Link_16	* *****	*****	*****	*****	*	AG	655	2.6	0.0	15.0
Q.	Link_17	* *****	*****	*****	*****	*	AG	3044	2.6	0.0	7.0
R.	Link_18	* *****	*****	*****	*****	*	AG	3044	2.6	0.0	7.0
S.	Link_19	* *****	*****	*****	*****	*	AG	3044	2.6	0.0	7.0
T.	Link_20	* *****	*****	*****	*****	*	AG	3044	2.6	0.0	7.0
U.	Link_21	* *****	*****	*****	*****	*	AG	1118	2.6	0.0	7.0
V.	Link_22	* *****	*****	*****	*****	*	AG	1118	2.6	0.0	7.0
W.	Link_23	* *****	*****	*****	*****	*	AG	1118	2.6	0.0	7.0
X.	Link_24	* *****	*****	*****	*****	*	AG	1118	2.6	0.0	7.0
Y.	Link_25	* *****	*****	*****	*****	*	AG	1118	2.6	0.0	7.0
Z.	Link_26	* *****	*****	*****	*****	*	AG	681	2.6	0.0	8.0
a.	Link_27	* *****	*****	*****	*****	*	AG	681	2.6	0.0	8.0
b.	Link_28	* *****	*****	*****	*****	*	AG	681	2.6	0.0	8.0
c.	Link_29	* *****	*****	*****	*****	*	AG	681	2.6	0.0	8.0
d.	Link_30	* *****	*****	*****	*****	*	AG	681	2.6	0.0	8.0
e.	Link_31	* *****	*****	*****	*****	*	AG	500	2.6	0.0	6.0
f.	Link_32	* *****	*****	*****	*****	*	AG	500	2.6	0.0	6.0
g.	Link_33	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
h.	Link_34	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
i.	Link_35	* *****	*****	*****	*****	*	AG	336	2.6	0.0	9.0
j.	Link_36	* *****	*****	*****	*****	*	AG	164	2.6	0.0	6.0
k.	Link_37	* *****	*****	*****	*****	*	AG	164	2.6	0.0	6.0
l.	Link_38	* *****	*****	*****	*****	*	AG	164	2.6	0.0	6.0
m.	Link_39	* *****	*****	*****	*****	*	AG	164	2.6	0.0	6.0
n.	Link_40	* *****	*****	*****	*****	*	AG	164	2.6	0.0	6.0
o.	Link_41	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
p.	Link_42	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
q.	Link_43	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
r.	Link_44	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
s.	Link_45	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
t.	Link_46	* *****	*****	*****	*****	*	AG	215	2.6	0.0	6.0
u.	Link_47	* *****	*****	*****	*****	*	AG	440	2.6	0.0	9.0
v.	Link_48	* *****	*****	*****	*****	*	AG	440	2.6	0.0	9.0
w.	Link_49	* *****	*****	*****	*****	*	AG	440	2.6	0.0	9.0
x.	Link_50	* *****	*****	*****	*****	*	AG	440	2.6	0.0	9.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   3

     JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
     RUN: CALINE4 RUN      (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. R_001	485226	******	1.8
2. R_002	485196	******	1.8
3. R_003	485222	******	1.8
4. R_004	485245	******	1.8
5. G1_1	485141	******	1.8
6. G1_2	485141	******	1.8
7. G1_3	485141	******	1.8
8. G1_4	485141	******	1.8
9. G1_5	485141	******	1.8
10. G1_6	485141	******	1.8
11. G1_7	485141	******	1.8
12. G1_8	485141	******	1.8
13. G1_9	485141	******	1.8
14. G1_10	485141	******	1.8
15. G1_11	485141	******	1.8
16. G1_12	485141	******	1.8
17. G1_13	485141	******	1.8
18. G1_14	485141	******	1.8
19. G1_15	485141	******	1.8
20. G1_16	485141	******	1.8
21. G1_17	485141	******	1.8
22. G1_18	485141	******	1.8
23. G1_19	485141	******	1.8
24. G1_20	485141	******	1.8
25. G1_21	485141	******	1.8
26. G1_22	485149	******	1.8

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 27. G1_23    * 485149 ******   1.8
 28. G1_24    * 485149 ******   1.8
 29. G1_25    * 485149 ******   1.8
 30. G1_26    * 485149 ******   1.8
 31. G1_27    * 485149 ******   1.8
 32. G1_28    * 485149 ******   1.8
 33. G1_29    * 485149 ******   1.8
 34. G1_30    * 485149 ******   1.8
 35. G1_31    * 485149 ******   1.8
 36. G1_32    * 485149 ******   1.8
 37. G1_33    * 485149 ******   1.8
 38. G1_34    * 485149 ******   1.8
 39. G1_35    * 485149 ******   1.8
 40. G1_36    * 485149 ******   1.8
 41. G1_37    * 485149 ******   1.8
 42. G1_38    * 485149 ******   1.8
 43. G1_39    * 485149 ******   1.8
 44. G1_40    * 485149 ******   1.8
 45. G1_41    * 485149 ******   1.8
 46. G1_42    * 485149 ******   1.8
 47. G1_43    * 485157 ******   1.8
 48. G1_44    * 485157 ******   1.8
 49. G1_45    * 485157 ******   1.8
 50. G1_46    * 485157 ******   1.8
 51. G1_47    * 485157 ******   1.8
 52. G1_48    * 485157 ******   1.8
 53. G1_49    * 485157 ******   1.8
 54. G1_50    * 485157 ******   1.8
 55. G1_51    * 485157 ******   1.8
 56. G1_52    * 485157 ******   1.8
 57. G1_53    * 485157 ******   1.8
 58. G1_54    * 485157 ******   1.8
 59. G1_55    * 485157 ******   1.8
 60. G1_56    * 485157 ******   1.8
 61. G1_57    * 485157 ******   1.8
 62. G1_58    * 485157 ******   1.8


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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   4
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JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	318.	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. R_002	113.	3.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3. R_003	202.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4. R_004	300.	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. G1_1	56.	3.8	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.1
6. G1_2	66.	4.4	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.1
7. G1_3	86.	3.9	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.0
8. G1_4	53.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. G1_5	72.	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. G1_6	102.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
11. G1_7	107.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
12. G1_8	107.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13. G1_9	110.	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
14. G1_10	112.	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. G1_11	113.	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. G1_12	113.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. G1_13	88.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. G1_14	117.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19. G1_15	120.	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. G1_16	122.	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21. G1_17	321.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22. G1_18	128.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. G1_19	117.	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24. G1_20	311.	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25. G1_21	133.	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26. G1_22	51.	3.7	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
27. G1_23	60.	4.4	0.0	0.0	0.0	0.0	0.0	1.0	0.2	0.2
28. G1_24	252.	4.3	0.0	0.0	0.0	0.0	0.5	1.0	0.0	0.0
29. G1_25	102.	3.4	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0
30. G1_26	68.	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31. G1_27	81.	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32. G1_28	107.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
33. G1_29	108.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
34. G1_30	111.	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
35. G1_31	112.	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36. G1_32	112.	3.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

37.	G1_33	*	114.	*	3.2	*	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
38.	G1_34	*	91.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.	G1_35	*	119.	*	3.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.	G1_36	*	122.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.	G1_37	*	321.	*	3.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.	G1_38	*	128.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.	G1_39	*	132.	*	3.5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44.	G1_40	*	313.	*	4.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.	G1_41	*	131.	*	5.1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.	G1_42	*	140.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.	G1_43	*	46.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1
48.	G1_44	*	53.	*	4.1	*	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.2
49.	G1_45	*	254.	*	4.4	*	0.0	0.0	0.0	0.0	0.4	1.2	0.0	0.0
50.	G1_46	*	101.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0
51.	G1_47	*	52.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.	G1_48	*	74.	*	3.5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.	G1_49	*	106.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
54.	G1_50	*	109.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
55.	G1_51	*	111.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.	G1_52	*	112.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.	G1_53	*	113.	*	3.2	*	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
58.	G1_54	*	113.	*	3.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59.	G1_55	*	118.	*	3.3	*	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
60.	G1_56	*	121.	*	3.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.	G1_57	*	320.	*	3.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.	G1_58	*	127.	*	3.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 5

JOB: C:\Users\jte\Desktop\8293_CalRoads\CO_Ha
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

*

CONC/LINK

```
   RECEPTOR   *   I    J    K    L    M    N    O    P    Q    R    S    T    U    V
   W    X    Y    Z    a    b    c    d    e    f    g    h    i    j    k    l    m
   n    o    p    q    r    s    t    u    v    w    x

------------*-------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------------
  1. R_001    *  0.0  0.3  0.0  0.0  0.1  0.2  0.0  0.0  0.0  0.0  0.1  0.1  0.0
0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  2. R_002    *  0.0  0.2  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  3. R_003    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.4  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  4. R_004    *  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.1  0.3  0.3  0.1  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  5. G1_1     *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  6. G1_2     *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  7. G1_3     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  8. G1_4     *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  9. G1_5     *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.3  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 10. G1_6     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 11. G1_7     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 12. G1_8     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 13. G1_9     *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 14. G1_10    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 15. G1_11    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 16. G1_12    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 17. G1_13    *  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.2  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 18. G1_14    *  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 19. G1_15    *  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 20. G1_16    *  0.0  0.1  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 21. G1_17    *  0.0  0.0  0.1  0.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.3  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 22. G1_18    *  0.0  0.1  0.0  0.2  0.3  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 23. G1_19    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.5  0.1  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 24. G1_20    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  1.2  0.8  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 25. G1_21    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.5  1.3  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 26. G1_22    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 27. G1_23    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 28. G1_24    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 29. G1_25    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 30. G1_26    *  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.3  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 31. G1_27    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 32. G1_28    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 33. G1_29    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 34. G1_30    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 35. G1_31    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 36. G1_32    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 37. G1_33    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 38. G1_34    *  0.0  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.2  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 39. G1_35    *  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 40. G1_36    *  0.0  0.1  0.0  0.0  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 41. G1_37    *  0.0  0.0  0.0  0.4  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.3  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 42. G1_38    *  0.0  0.1  0.0  0.0  0.4  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 43. G1_39    *  0.0  0.1  0.0  0.0  0.3  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 44. G1_40    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  1.3  0.5  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 45. G1_41    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2  0.7  1.2  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 46. G1_42    *  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.5  0.1  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 47. G1_43    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 48. G1_44    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 49. G1_45    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 50. G1_46    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 51. G1_47    *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.1  0.1  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 52. G1_48    *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 53. G1_49    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 54. G1_50    *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 55. G1_51    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 56. G1_52    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 57. G1_53    *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 58. G1_54    *  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 59. G1_55    *  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 60. G1_56    *  0.0  0.1  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.1
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 61. G1_57    *  0.0  0.0  0.0  0.3  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.3  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 62. G1_58    *  0.0  0.1  0.0  0.0  0.3  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0
0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

1

RECON

An Employee-Owned Company

May 9, 2017

Mr. Joseph Smith
Real Estate Development
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Reference: Biological Resources Letter Report for the Bayside Performance Park Enhancement and Port Master Plan Amendment Project (RECON Number 8293)

Dear Mr. Smith:

This biological letter report summarizes the biological resources survey methods and results, assessment of potential impacts to biological resources, and recommended mitigation measures for the Bayside Performance Park and Port Master Plan Amendment Enhancement Project (project).

1.0 INTRODUCTION AND PROJECT DESCRIPTION

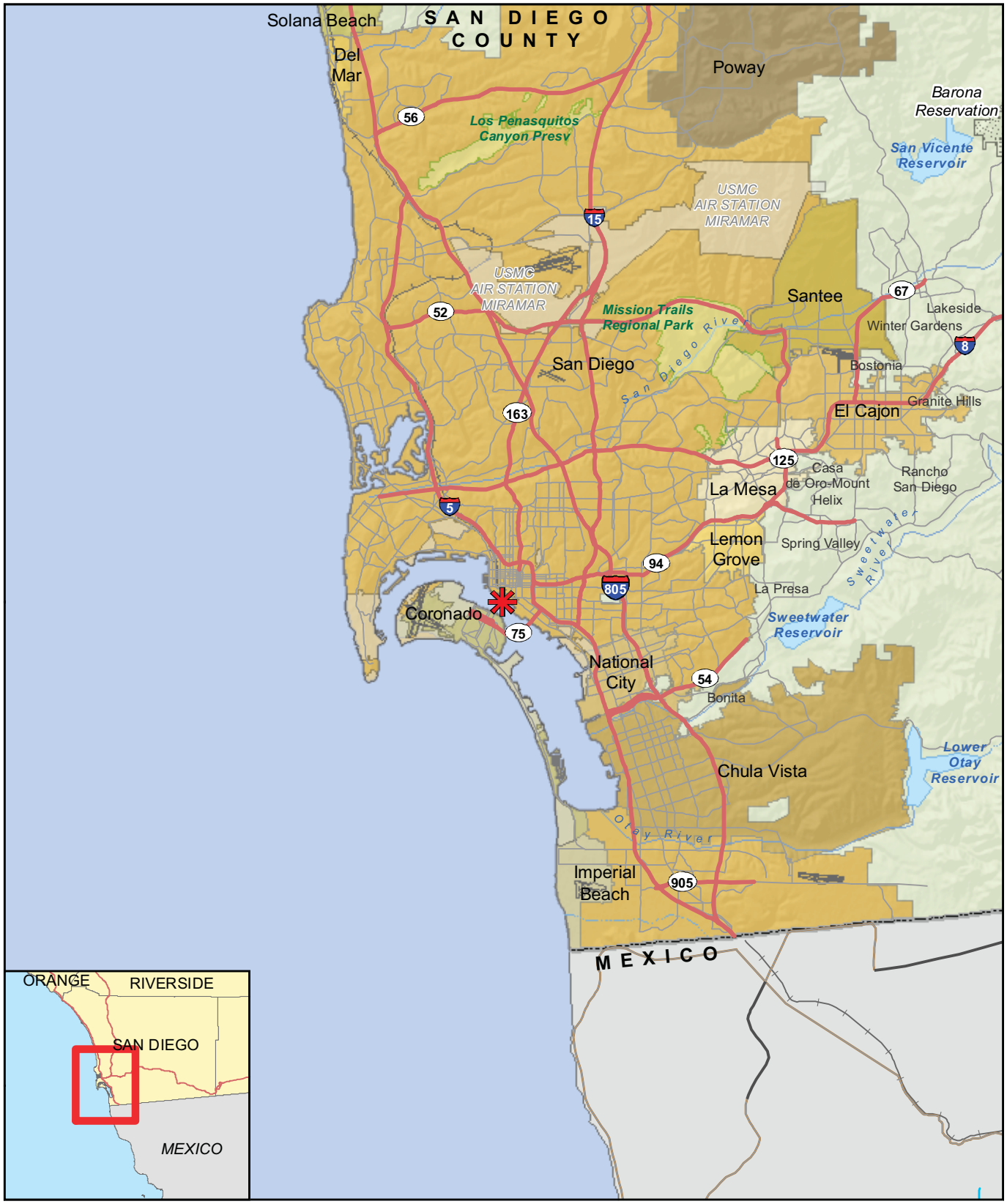
The purpose of this biological letter report is to (1) document the existing biological conditions within the project survey area; (2) evaluate the project area and vicinity for the potential to support sensitive biological resources; (3) provide an analysis of impacts to sensitive biological resources; and (4) detail proposed mitigation measures required to reduce these impacts to below a level of significance.

1.1 Project Location

The project site is located at 200 and 206 Marina Park Way, at Embarcadero Marina Park South (EMPS) in the city of San Diego, California (Figures 1 and 2). The project site is situated on the bay side of the San Diego Convention Center and encompasses EMPS, including its parking lots, fishing pier (known as the Embarcadero Marina Park Pier), bait shop and deli, basketball courts, picnic areas, and lawn area. The Embarcadero Marina Park North lies just north of the site, separated by water and the boat entrance to the 450-slip Marriott Marina. The project area is shown on the U.S. Geological Survey (USGS) 7.5 minute topographic map series, Point Loma quadrangle (see Figure 2; USGS 1994). The survey area falls completely within the coastal zone and the Pacific Flyway.

1.2 Project Description

Pursuant to the San Diego Unified Port District's (District) Port Master Plan (PMP; District 2015), the San Diego Bay Integrated Natural Resources Management Plan (INRMP; U.S. Department of the Navy and Port of San Diego 2013), and the California Environmental Quality Act (CEQA), the San Diego Symphony (Applicant) proposes to perform EMPS park enhancements. The park enhancements include the replacement and enhancement of public park amenities throughout EMPS and the installation of a permanent performance stage and event venue, including a sand-based synthetic turf seating area, box office, dressing rooms, restrooms, and food pavilions, within approximately one-third of EMPS to be named the Bayside Performance Park. The Bayside Performance Park area would cover approximately 3.47 acres of EMPS, or approximately 32 percent of EMPS. Once all park enhancements are completed, including the Bayside Performance Park, the redeveloped 10.8-acre EMPS would comprise approximately 1.5 acres of public walkway area, 2.46 acres of natural lawn area, 2.36 acres of synthetic turf area, 0.35 acre of permeable pavers, 1.12 acres of concrete pavers, and a 1.80-acre public parking lot. The performance stage structure would have a footprint of approximately 0.29 acre. Figure 3 shows the project boundary on aerial photograph.



Project Location

FIGURE 1
Regional Location of the Bayside Performance Park Enhancement Project

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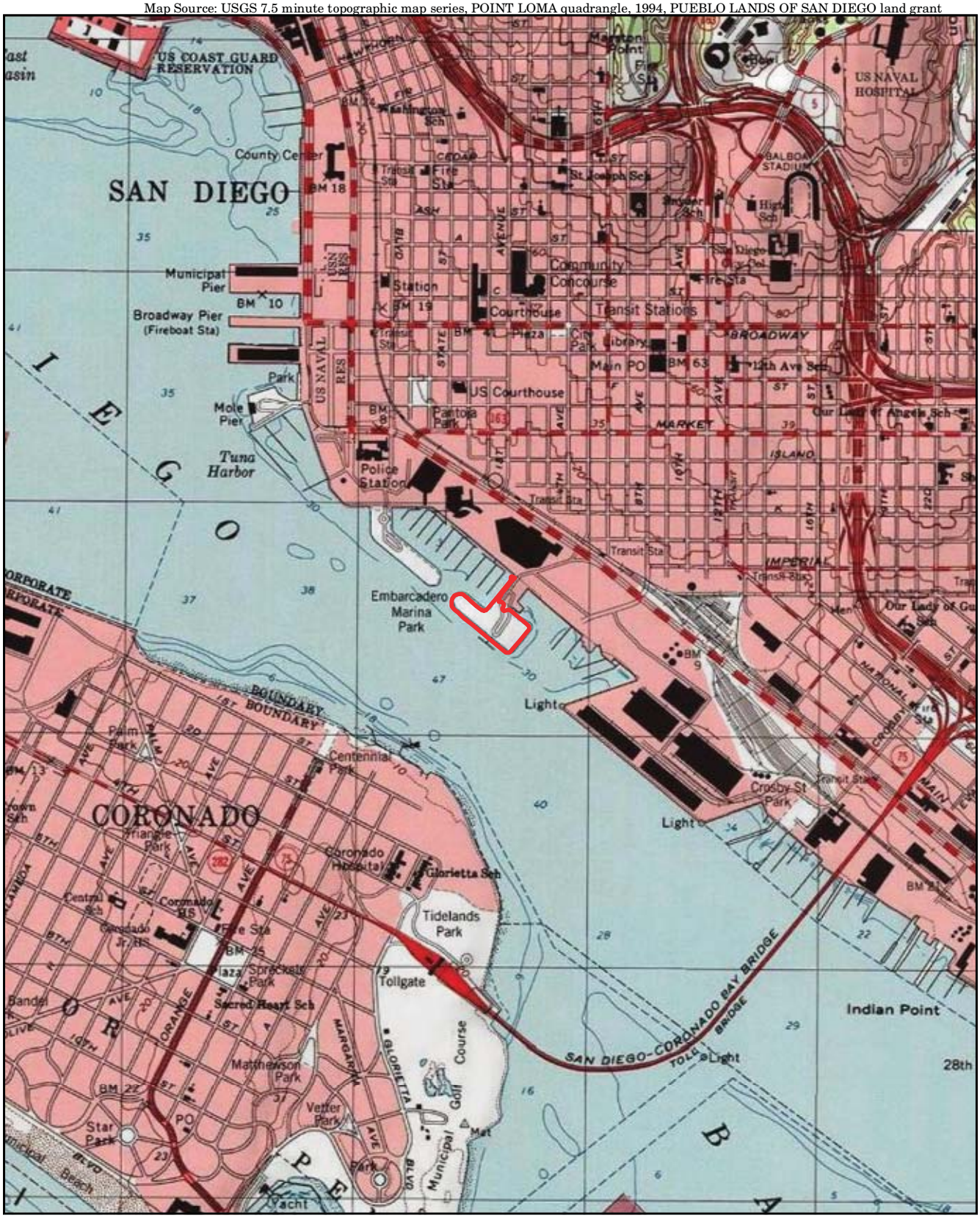
Map Source: USGS 7.5 minute topographic map series, POINT LOMA quadrangle, 1994, PUEBLO LANDS OF SAN DIEGO land grant



0 Feet 2,000

Project Boundary

FIGURE 2
The Bayside Performance Park
Enhancement Project Location on USGS Map

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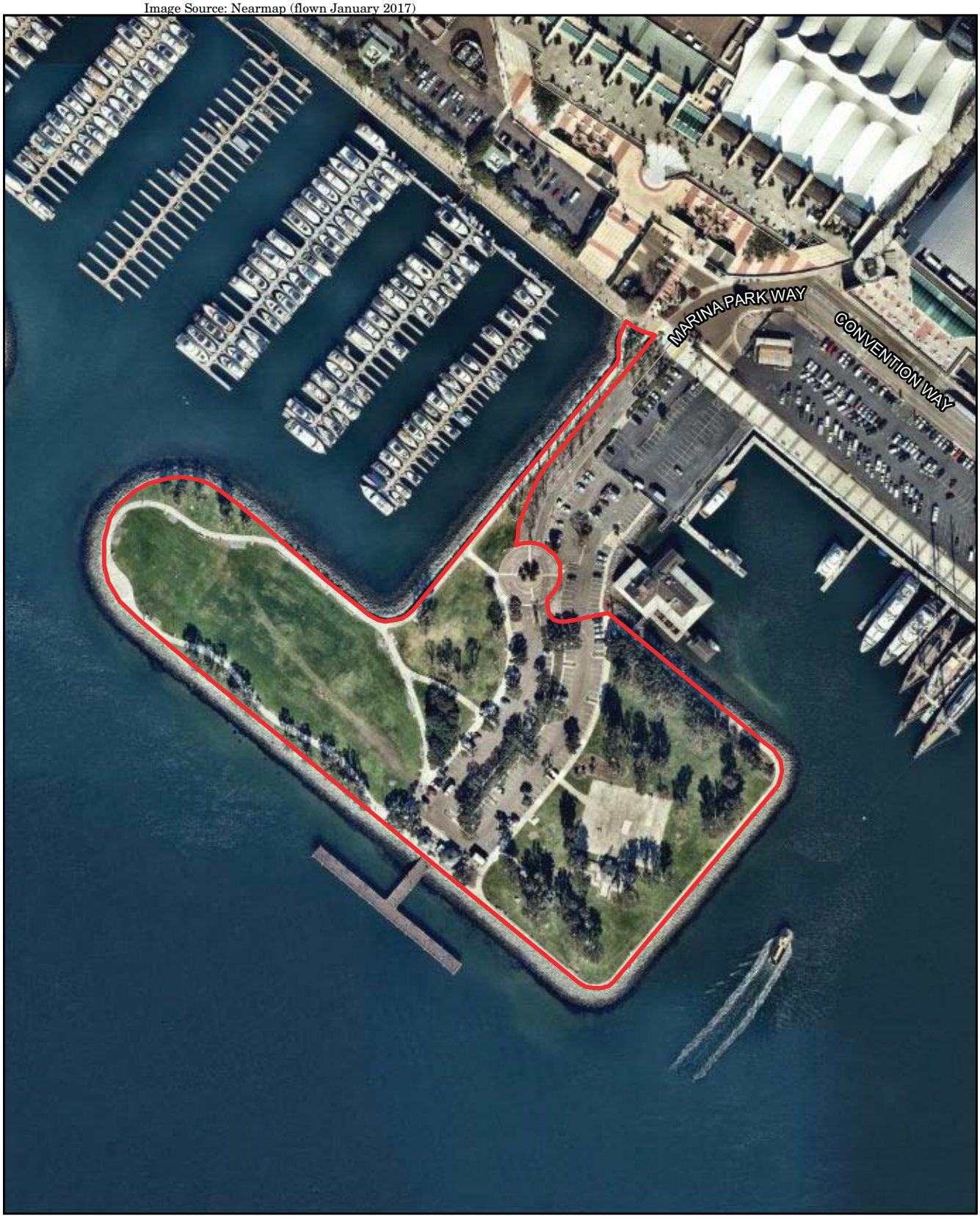
Image Source: Nearmap (flown January 2017)



0 Feet 220

Project Location

FIGURE 3
The Bayside Performance Park
Project Location on Aerial Photograph

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The removal of approximately 105 ornamental trees would be required to provide space for the parking area reconfiguration and construction of other park enhancements, as well as the installation of photovoltaic panels by the year 2030, as required by Mitigation Measure GHG-1 in the Bayside Performance Park Enhancement Project and Port Master Plan Amendment Draft Environmental Impact Report (EIR; RECON 2017). Tree removal would occur in phases, as a portion of the trees slated for removal within the parking lot area may not be removed during initial construction but rather prior to installation of the photovoltaic panels within the parking lot by 2030. Following construction of the park enhancements, 55 trees and other ornamental landscaping would be planted throughout EMPS.

The permanent performance stage and acoustic shell would include installation of sound and light supports, as well a visual public art element that may consist of light-emitting diode (LED) lighting on the exterior acoustic shell. Additional enhancements would include installation of LED lighting to illuminate portions of the promenade and main access point to aid in nighttime wayfinding and create a safe nighttime environment. Energy efficient LED lighting would be directed in such a manner to minimize light bleed into surrounding areas and to minimize light pollution.

2.0 SURVEY METHODS AND LIMITATIONS

2.1 Background Research

RECON Environmental, Inc. (RECON) conducted a review of existing sensitive species data recorded within 2 miles of the project area. This review included searches of the U.S. Fish and Wildlife (USFWS) all-species occurrence database (USFWS 2017a) and critical habitat portal (USFWS 2017b), the SanBIOS database (County of San Diego 2017), and species occurrence records from the California Natural Diversity Database (CNDDB; State of California 2017a).

Background research to assess the existing biological conditions also included a review of online aerial satellite imagery (Google 2017), USGS topographic map (USGS 1994), and U.S. Department of Agriculture (USDA) soil survey maps (USDA 1973). Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; State of California 2017b–e; California Native Plant Society [CNPS] 2017; Reiser 2001). Additional background research included research of lighting effects on the Pacific Flyway.

2.2 Field Survey

RECON biologist Kayo Valenti conducted a biological resources survey on February 7, 2017 between 9:50 a.m. and 12:05 p.m. to document existing on-site biological resources and to assess the potential for special status species to occur within and adjacent to the proposed project area. Weather conditions during the survey consisted of 100 percent cloud cover, 2- to 8-mile-per-hour winds, and air temperature of 60 to 64 degrees Fahrenheit. Ms. Valenti conducted the survey on foot by meandering throughout the project boundary. The survey area included the surrounding 100-foot buffer to document land cover types and land uses and the surrounding 300-foot buffer to document wildlife occurrences and potential habitat. These buffer areas were observed using binoculars from the project boundary. Vegetation communities and land cover types were mapped on a 1-inch-equals-150-feet scale aerial photograph (flown January 2017). Vegetation communities were classified according to Holland (1986) as modified by Oberbauer et al. (2008). Dominant plant species within the mapped vegetation communities were noted. Digital photographs of representative areas were taken during the survey.

Ms. Valenti recorded plant species observed directly within the survey area and conducted a directed search for special status plants that would have been apparent at the time of the survey. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors. The biological resources survey was conducted during winter, which does not coincide with the blooming period for many annual species. Floral nomenclature for common plants follows Baldwin (2012) as updated by the Jepson Online

Interchange (University of California 2017) and for sensitive plants the California Native Plant Society online database (CNPS 2017).

Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted. The wildlife inventory was limited by seasonal and temporal factors. The survey was performed during winter, when spring or summer migrants may not have been present. Additionally, the survey was performed during the day; therefore, nocturnal animals were identified by sign that was apparent at the time of the survey. Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (2016) and Unitt (2004), and for mammals with Baker et al. (2003).

3.0 SURVEY RESULTS

3.1 Physical Characteristics

The project site occurs on a manufactured peninsula within the San Diego Bay with the Convention Center and Downtown San Diego to the north. The surrounding area is characterized by urban development and open water. The project site is an existing public park that contains maintained lawn, mature ornamental trees, parking lots, and recreational facilities.

San Diego County is generally characterized by warm, dry summers and mild winters, with annual precipitation typically falling between November and March. The immediate area surrounding the project site is influenced by coastal climate weather regimes, often resulting in a marine layer during spring and early summer and milder summer temperatures than occur inland.

Elevation within the project site ranges from 2 to 14 feet above mean sea level, with the higher elevation occurring within the maintained lawn in the northwest side of the project. Urban land is the soil type mapped within the survey area (USDA 1973). This soil type occurs where the landscape has been altered by cut-and-fill operations.

The project site falls within the Pacific Flyway, an avian migration pathway in which more than 350 species of birds migrate between nesting and wintering areas. It extends from Alaska and Canada to Mexico, and encompasses the entire state of California, though some areas (such as those bordering the ocean) are more frequented than others (California Coastal Commission [CCC] 2014a). San Diego is an essential link along the Pacific Flyway as a wintering location for waterfowl and an important breeding ground for seabirds (USFWS 1998).

3.2 Botanical Resources – Flora

3.2.1 Vegetation Communities and Land Cover Types

Three vegetation communities and land cover types were mapped within the survey area, including marine bay, ornamental plantings, and urban/developed land (Figure 4). These vegetation communities and land cover types, along with their corresponding Holland/Oberbauer code and on-site acreage, are summarized in Table 1, below. A brief description of each community is also provided below.

Table 1
Vegetation Communities/Land Cover Types within the Survey Area

Community or Type (Holland Code as modified by Oberbauer)	Acres
Marine bay (64120)	5.95
Ornamental plantings (11000)	7.38
Urban/developed land (12000)	7.11
Total	**20.44**

Image source: Nearmap (flown January 2017)

0 Feet 200

Project Location
Vegetation Survey Area
Wildlife Survey Area

Vegetation Communities and Land Cover Types

Marine Bay
Ornamental Plantings
Urban/Developed

Sensitive Wildlife Observations

California Brown Pelican (*Pelecanus occidentalis californicus*)
Double-crested Cormorant (*Phalacrocorax auritus albociliatus*)

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FIGURE 4
Existing Biological Resources and Impacts within the Bayside Performance Park Project

Marine Bay

Marine bay is any body of water surrounded by land on three sides. Marine bay surrounds the project site with a depth range of approximately 2 feet immediately surrounding the peninsula, up to 44 feet along the southwestern portion of the survey area (National Oceanic and Atmospheric Administration [NOAA] 2012). Developed areas such as a fishing pier (Photograph 1) and additional piers with docked boats occur on top of the marine bay (see Figure 4). The water is used by a wide variety of marine mammals (including California sea lion [*Zalophus californianus*] and coastal bottlenose dolphin [*Tursiops truncatus*]), fishes (including California halibut [*Paralichthys californicus*], topsmelt [*Atherinops affinis*], and white sea bass [*Atractoscion nobilis*]), and invertebrate species (U.S. Department of the Navy and Port of San Diego 2013). Additionally, the water provides foraging and resting habitat for a wide variety of water birds (U.S. Department of the Navy and Port of San Diego 2013). The San Diego Bay is regulated by the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB).

Ornamental Plantings

Ornamental plantings occur as the dominant vegetation community of the project site (see Figure 4). This community contains maintained lawn and mature ornamental trees (Photographs 2 through 7). Dominant mature ornamental trees include paperbark tree (*Melaleuca quinquenervia*), New Zealand Christmas tree (*Metrosideros excelsus*), and coral tree (*Erythrina caffra*). The trees occur sparsely within the northwestern portion of the project area where they line the bay and a pedestrian path around a large maintained lawn (see Figure 4). Within the center portion of the project area, the trees line the outside and middle of the parking area. The ornamental trees occur most densely within the southeastern portion of the project area and contain an understory of maintained lawn and public facilities. The maintained lawn is dominated by blue grass (*Poa* sp.), and subdominant species include white clover (*Trifolium repens*), lesser swine cress (*Lepidium didymum*), and Australian cotula (*Cotula australis*). The maintained lawn provides low-quality habitat for mammal and reptile species due to ongoing mowing and pedestrian activities. The mature ornamental trees provide nesting habitat for avian species, and the open lawn areas may provide foraging habitat for urban-acclimated avian species. However, due to the urban setting and ongoing pedestrian and vehicle activity, the ornamental plantings vegetation community is considered low-quality habitat for wildlife. Ornamental plantings are not considered a sensitive natural community in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), or USFWS.

Urban/Developed Land

Urban/developed land within the survey area includes the paved parking lot, pedestrian path, public facilities, piers, and the artificial shoreline (see Figure 4; see Photographs 4, 6, and 8). Urban/developed land is not considered a sensitive land cover type.

3.2.2 Plants

A total of 31 plant species was observed within the survey area, with 100 percent of the plant species considered non-native and/or naturalized species. Dominant plant species occurring within the ornamental plantings are discussed in Section 3.2.1 above. A list of plant species observed within the survey area is included as Attachment 1.

3.3 Zoological Resources – Fauna

A total of 14 animal species was detected within the survey area, including 13 bird and 1 mammal species. A list of animal species detected within the survey area is included as Attachment 2. Yellow-rumped warbler (*Setophaga coronate*), Anna's hummingbird (*Calypte anna*), northern mockingbird (*Mimus polyglottos polyglottos*), and house finch (*Haemorhous mexicanus frontalis*) were observed foraging and calling in the mature trees. Rock doves (*Columba livia*) were observed within the maintained lawn and on the fishing pier.

PHOTOGRAPH 1
Marine Bay Surrounding the Bayside
Performance Park Enhancement Project, Facing South

PHOTOGRAPH 2
Ornamental Plantings within the Bayside
Performance Park Enhancement Project, Facing Southeast

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PHOTOGRAPH 3
Maintained Lawn within the Bayside
Performance Park Enhancement Project, Facing Southeast

PHOTOGRAPH 4
Ornamental Plantings and Urban/Developed Land within the
Bayside Performance Park Enhancement Project, Facing Southwest

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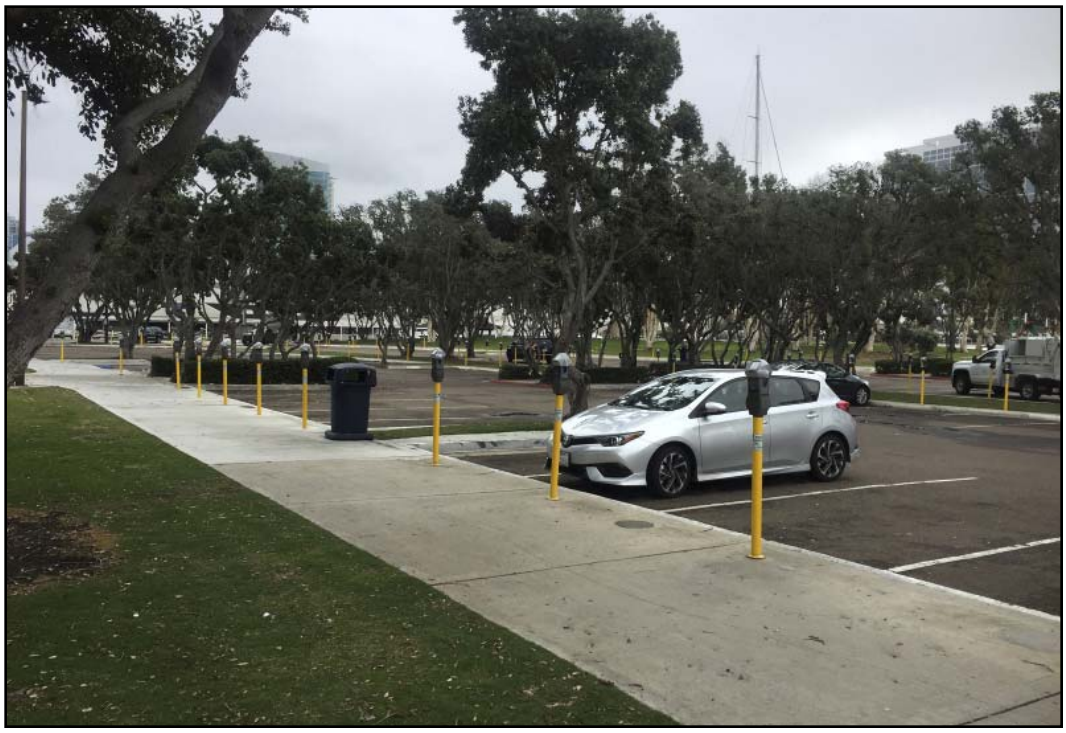
PHOTOGRAPH 5
Ornamental Plantings within the Bayside
Performance Park Enhancement Project, Facing East



PHOTOGRAPH 6
Ornamental Plantings and Urban/Developed Land within the
Bayside Performance Park Enhancement Project, Facing East

RECON

PHOTOGRAPH 7
Ornamental Plantings within
the Bayside Performance Park
Enhancement Project, Facing Southeast

RECON

PHOTOGRAPH 8
Urban/Developed Land within the Bayside
Performance Park Enhancement Project, Facing Southeast

California gulls (*Larus californicus*) were observed scattered throughout the maintained lawn and urban/developed portions of the survey area. Two California brown pelicans (*Pelecanus occidentalis californicus*) remained perched on the fishing pier during the survey. Several avian species, including double-crested cormorant (*Phalacrocorax auritus albociliatus*), were observed using the marine bay. Additional species observed include surf scoter (*Melanitta perspicillata*), pelagic cormorant (*Phalacrocorax pelagicus resplendens*), American coot (*Fulica americana americana*), western gull (*Larus occidentalis wymani*), American crow (*Corvus brachyrhynchos hesperis*), and desert cottontail (*Sylvilagus audubonii*).

3.4 Sensitive Biological Resources

Sensitive biological resources may include sensitive vegetation communities; sensitive plant and wildlife species; wildlife movement corridors and nursery sites; and jurisdictional wetlands and waters.

Assessments for the potential occurrence of sensitive species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB (State of California 2017a), and species occurrence records from other sites in the vicinity of the project. The following sections describe the sensitive biological resources that are known to occur or have a potential to occur within and/or adjacent to the project area.

3.4.1 Sensitive Vegetation Communities

Sensitive vegetation communities are vegetation assemblages, associations, or subassociations that have cumulative losses throughout the region, have relatively limited distribution, support or potentially support sensitive species, or have particular value to other wildlife. Typically, sensitive vegetation communities are considered sensitive whether or not they have been disturbed. Sensitive vegetation communities are regulated by various local, state, and federal resource agencies.

No vegetation communities considered sensitive by the USFWS, CDFW, local or regional plans, policies, or regulations occur at the site.

3.4.2 Sensitive Plant Species Occurring or with the Potential to Occur

For purposes of this letter report, sensitive plant species include those that are (1) listed as threatened or endangered or proposed for listing by federal or state agencies (State of California 2017d); (2) included on CNPS California Rare Plant Ranks (CRPR) 1 or 2 (CNPS 2017); or (3) considered rare, endangered, or threatened by CDFW (State of California 2017d) or other local conservation organizations or specialists. Other noteworthy plant species are considered to be those that are CRPR 3 or 4 (CNPS 2017).

No sensitive plant species were observed within the survey area during the biological survey. No additional sensitive plant species are expected to occur within the immediate project area, as it is an urban park.

3.4.3 Sensitive Wildlife Species Occurring or with Potential to Occur

For purposes of this letter report, sensitive wildlife species include those that are (1) listed as threatened or endangered or are proposed for listing by USFWS or CDFW (USFWS 2017c and State of California 2017c); (2) designated as “fully protected” by CDFW; (3) considered “species of special concern” by CDFW, and/or (4) considered “taxa to watch” by CDFW (State of California 2017b and 2017c). Additionally, species that are covered by the federal Migratory Bird Treaty Act (MBTA) and/or California Fish and Game Code (CFGC) 3503 and 3503.5 were considered.

No fish or marine mammals were observed during the survey; however, they are known to occur within the San Diego Bay surrounding the project site. Marine mammals are protected by the Marine Mammal Protection Act. While marine mammals are likely to occur within the water, they are not expected to occur within the project area. No piers within the survey area appeared to be used as haul-out sites, i.e. resting locations, for mammals such as California sea lion.

Two sensitive wildlife species, California brown pelican and double-crested cormorant, were observed within the survey area and are discussed below. Additional birds protected by the MBTA and CFGC have a potential to nest within the project area and may include urban-acclimated species such as Anna's hummingbird, house finch, and northern mockingbird. Migratory bird species using the Pacific Flyway are likely to migrate through and adjacent to the project site.

California brown pelican. The California brown pelican is a California fully protected species (State of California 2017b and 2017c). This species was previously listed as federal and state endangered; however, both the federal and state governments delisted the species in November 2009 (USFWS 2009). The California brown pelican is found in estuaries, marine subtidal waters, and pelagic waters along the Pacific coast from British Columbia south to northern South America (Shields 2002). California brown pelicans are common in San Diego County from August to October. In November, this species migrates to offshore breeding colonies on the Channel Islands in southern California and Los Coronados Islands in Baja California, Mexico (Unitt 2004). Breeding occurs from March to April, and pairs may nest on the ground or in trees, depending on the substrate available (Shields 2002). There is only one recorded incident, in 1998, of nesting activity for this species in San Diego County (Unitt 2004). The low point of brown pelican's abundance in San Diego County is from March to May, when the breeding birds are clustered at their colonies on shore islands (Unitt 2004). The severe decline in the California brown pelican populations from the late 1950s to early 1970s can be traced directly to the contamination of their food supply with dichlorodiphenyltrichloroethane (DDT) and other contaminants. Throughout the 1980s and 1990s, oil spills were also a significant threat (Shields 2002). Following the ban on the use of DDT, this species' numbers have been growing. However, the California brown pelican still faces threats, such as injuries from fish hooks and fishing lines, which are common in San Diego County. In general this species is sensitive to human disturbance when nesting (Unitt 2004). For example, it has been documented that the presence of humans within 600 meters of nests has contributed to reduced productivity and increased nest abandonment (Shields 2002).

Two California brown pelicans were observed perched on the fishing pier approximately 20 feet southwest of the project area during the biological survey (see Figure 4). No nests or nesting behavior was detected at the time of the survey. This species is likely to forage for fish in the marine bay surrounding the project area and perch on the border of the project area, but it is not expected to nest within the project area. As mentioned above, there is only one recorded incident of nesting activity for this species in San Diego County. They typically nest on small estuarine or offshore islands (Shields 2002).

Double-crested cormorant. Nesting colonies of double-crested cormorant are on CDFW's watch list (State of California 2017b). This species occurs on the seacoast and inland waters, including bays, lagoons, estuaries, and reservoirs, and was once only a non-breeding visitor in San Diego County. The double-crested cormorant breeds in isolated colonies along the coast and interior from Alaska to northern Belize (Hatch and Weseloh 1999). The pacific population breeds between South British Columbia and Sinaloa, Mexico, with most individuals nesting coastally in California (Dorr et al. 2014). As of 2002, two nesting colonies were known to occur within the county of San Diego: one in the salt works at the south end of San Diego Bay and one at the upper end of Sweetwater Reservoir (Unitt 2004). This bird is far more common in the fall and winter in San Diego County than in the spring and summer (Unitt 2004). This species' diet consists primarily of schooling fish species but expands to aquatic insects, crustaceans, and amphibians (Hatch and Weseloh 1999). The double-crested cormorant suffered a population decline from direct removal as a pest and from nesting failure due to the presence of pesticide residues in marine food chains in the 1950s and early 1960s. Since the suspension of DDT use, population recovery has been increasing (Hatch and Weseloh 1999).

One double-crested cormorant was observed diving in the marine bay approximately 100 feet southeast of the project area during the biological survey (see Figure 4). No nests or nesting behavior was detected at the time of the survey. This species is likely to fish in the bay surrounding the project area and perch on the exposed rocks surrounding the project area and/or the mature ornamental trees within the project area. The

daytime resting places available in the project area are not expected to serve as nighttime roosts, as roosts are often more remote and used by larger numbers (Dorr et al. 2014). As mentioned above, nesting colonies are not common in San Diego County. As no sign of a nesting colony was observed within the survey area, this species is not expected to nest within the project area.

3.4.4 Wildlife Corridors, Nursery Sites, and the Pacific Flyway

Movement of large terrestrial wildlife is not expected to occur through the survey area, which is constrained by urban development and open water and does not function as a wildlife movement corridor. The ornamental plantings within the survey area provide some wildlife habitat value and may act as "stepping stones" for flighted species but would not facilitate the movement of large terrestrial wildlife through the project area.

The survey area does not support a native wildlife nursery site.

As mentioned above, the project site falls within the Pacific Flyway. Therefore, migratory bird species using the Pacific Flyway may pass within or adjacent to the project site.

3.4.5 Jurisdictional Wetlands and Waters

Jurisdictional wetlands and waters are regulated by the ACOE, CDFW, CCC, and/or RWQCB. The RWQCB takes jurisdiction over federal and state waters as mandated by both the federal Clean Water Act (CWA) and the California Porter–Cologne Water Quality Control Act.

San Diego Bay is a Traditional Navigable Water (TNW) of the United States and subject to regulation by the ACOE and RWQCB under Section 10 of the Rivers and Harbors Act and Sections 401 and 404 of the CWA. No wetland or riparian vegetation was observed within the project survey area, and no hydrology features indicating jurisdictional wetlands or waters are known to occur on-site.

4.0 REGULATORY ENVIRONMENT

Federal applicable laws and regulations that pertain to the project include Coastal Zone Management Act administered by the CCC, the Rivers and Harbors Act regulated by the ACOE, federal Endangered Species Act (ESA) regulated by USFWS, MBTA enforced by USFWS, and the CWA regulated by ACOE and RWQCB. State applicable laws and regulations pertaining to the project include the CEQA, California ESA regulated by CDFW, CFGC enforced by CDFW, and the Porter-Cologne Water Quality Act enforced by RWQCB. Additionally, the project area falls within the District's PMP and the INRMP.

5.0 PROJECT IMPACT ANALYSIS AND MITIGATION MEASURES

The biological impacts of the project were assessed according to standards of significance derived from Appendix G of the CEQA Guidelines. Mitigation is required for impacts that are considered significant under CEQA.

5.1 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, impacts are considered significant if the project would result in any of the following:

1. A substantial adverse effect, either directly through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

2. A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW, NMFS, or USFWS.

3. A substantial adverse effect on federal protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

4. Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

5. Conflict with any applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approval local, regional, or state habitat conservation plan.

5.2 Issue 1: Special Status Species

Would the project have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

5.2.1 Impact Analysis

Sensitive Plants Species

No sensitive plant species were identified as having a potential to occur within the project impact area. Therefore, no direct, indirect, or cumulative impacts to sensitive plant species are anticipated.

Sensitive Wildlife Species

Direct impacts

As previously stated, two sensitive wildlife species, California brown pelican and double-crested cormorant, were detected within the survey area (i.e., the project area and surrounding 300 feet) during the survey. These species are not expected to nest within or adjacent to the project. No nests or nesting behavior was detected at the time of the survey. California brown pelican is likely to forage for fish in the marine bay surrounding the project area and perch on the border of the project area, but it is not expected to nest within the project area, as they typically nest on small estuarine or offshore islands (Shields 2002). Double-crested cormorant is likely to fish in the bay surrounding the project area and perch on the exposed rocks surrounding the project area and/or the mature ornamental trees within the project area. The daytime resting places available in the project area are not expected to serve as nighttime roosts, as roosts are often more remote and used by larger numbers (Dorr et al. 2014). Nesting colonies are not common in San Diego County (Unitt 2004). As no sign of a nesting colony was observed within the survey area, this species is not expected to nest within the project area. Therefore, the project is not anticipated to have substantial adverse effects on these species.

Nesting bird species protected by the MBTA and CFGC are expected to occur and nest within the project area. As the proposed project includes removal of ornamental trees, the project has a potential to result in direct impacts to nesting bird species if removal of vegetation occurs during the avian nesting season (February 1 to September 15). Direct adverse impacts to active nests would be considered significant and would require mitigation.

While fish and marine mammals occur within the San Diego Bay surrounding the project area, these species are not expected to occur within the project area. No project-related activity is proposed within the San Diego Bay. Therefore, no direct impacts to marine species are anticipated and no mitigation is required.

Indirect Impacts

An indirect impact may occur when secondary effects of a project, such as an increase in lighting or noise, occurs in or near habitat for sensitive species. As previously mentioned, ornamental trees within the project have the potential to support nesting migratory birds protected by the CFGC and MBTA. Noise from construction activities associated with the project has the potential to disrupt potential nesting activities. Therefore, indirect noise impacts to nesting migratory birds would be potentially significant and would require mitigation.

An increased number of events and event attendances may result in a significant increase in litter within EMPS and ultimately San Diego Bay. The increase in litter could result in indirect impacts to marine and coastal wildlife species. Therefore, a potentially significant impact would occur and mitigation is required.

5.2.2 Mitigation Measures

MM BIO-1: Nesting Birds (Species Covered by MBTA/CFGC)

If project-related construction activities are initiated or tree removal occur within the avian nesting season (February 1 to September 15), a qualified biologist shall conduct a pre-construction nesting bird survey within suitable habitat in proximity of the project activities. The survey shall be conducted no more than 72 hours prior to commencement of construction or tree removal activities. The survey results will determine any necessary subsequent action, as follows:

1. If an active nest is located, a qualified biologist will assign an appropriate no-impact buffer around the active nest. No construction activities shall occur within this buffer. The buffer distance and restrictions will depend on the bird species and site-specific conditions.

    a. A qualified biologist shall monitor the nest daily until project activities are no longer occurring adjacent to the identified buffer zone around the nest or until the nest is no longer active. The qualified biologist will monitor bird behavior to verify the buffer is sufficient.

    b. Observations made by the biologist shall be documented in a nesting bird monitoring report each day that monitoring occurs. The reports shall identify the nest location, bird species, buffer, construction activities conducted in the vicinity of the buffer, and bird behavior observed. Nesting bird monitoring reports shall be submitted to the District on a weekly basis during construction activities adjacent to the identified buffer until the nest is no longer active.

    c. If the monitoring biologist determines that the buffer implemented is not effective, the biologist will recommend additional measures (e.g., increased buffer width, noise or visual barriers, work intervals, halting construction activities, or allowing only specific work types). Recommendations will depend on the bird species and site-specific conditions and will be documented in the nesting bird monitoring reports.

    d. The Symphony or its construction contractor shall implement the additional measures recommended by the biologist. The biologist shall confirm the additional measures are appropriately implemented and document compliance in the nesting bird monitoring reports.

    e. A District biologist shall visit the site periodically, as needed, to ensure nesting bird monitoring is being conducted according to this measure.

2. If no active nests are found during the pre-construction nesting bird survey, construction shall be allowed to proceed. The biologist will document the findings in a nesting bird compliance memo to be submitted to the Symphony and the District.

MM BIO-2: Litter Deterrence Strategies

The applicant shall install wildlife-proof waste and recycling receptacles throughout EMPS, including within the Bayside Performance Park, at strategic locations to deter littering. These locations shall include, but are not limited to the following: key EMPS access points along the public promenade; adjacent to the Embarcadero Marina Park Fishing Pier/bait shop and deli; gazebo/basketball court area; near the back-of-stage deck; at the sub-grade restrooms within the elevated event lawn; and at key access ways throughout the Bayside Performance Park. The wildlife-proof waste and recycling receptacles would be designed to prevent birds and other animals from removing and dispersing waste. Additionally, "no littering" signage shall be installed at strategic locations throughout EMPS and may be co-located with the waste and recycling receptacles. The locations of waste and recycling receptacles and signage shall be approved by the District prior to installation.

All litter shall be removed from the Bayside Performance Park immediately following events. All cleanup activities, including emptying of waste and recycling receptacles for appropriate disposal, must be completed directly following events, on the same day/night of the event, and prior to reopening the Bayside Performance Park for public access.

5.2.3 Level of Significance after Mitigation

With the implementation of the recommended mitigation MM BIO-1 and MM BIO-2, potentially significant direct and indirect impacts to sensitive wildlife species would be reduced to less than significant.

5.3 Issue 2: Sensitive Vegetation Communities

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW, NMFS, or USFWS?

5.3.1 Impact Analysis

No direct impacts to sensitive vegetation communities or riparian habitat are anticipated. The project would result in 10.8 acres of direct impacts to non-sensitive vegetation communities/land cover types (ornamental plantings and urban/developed land; Table 2), which would not be considered significant.

Table 2
Project Impacts to Vegetation Communities/Land Cover Types

Community or Type	Survey Area Total (Acres)	Project Impacts (Acres)
Marine Bay	5.95	**0.0**
Ornamental plantings	7.38	**7.06**
Urban/developed land	6.35	**3.74**
Total	**19.68**	**10.8**

5.3.2 Mitigation Measures

As no impacts are anticipated to occur to riparian habitat or sensitive vegetation communities, no mitigation is required.

5.3.3 Level of Significance after Mitigation

No mitigation is required, and impacts would remain less than significant.

5.4 Issue 3: Potential Jurisdictional Waters

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

5.4.1 Impact Analysis

No direct impacts to jurisdictional wetlands or waters are anticipated as a result of this proposed project. No project-related activity or development is proposed within San Diego Bay, which is subject to regulation by the ACOE and RWQCB.

Indirect impacts such as potential construction-related runoff into the San Diego Bay would be potentially significant and require mitigation. However, it is anticipated that the project will adhere to the Stormwater Pollution Prevention Plan (SWPPP) and the Stormwater Quality Management Plan (SWQMP) prepared for the project's construction. Appropriate storm water Best Management Practices (e.g., silt fence, fiber rolls, drip pans beneath staged equipment) are incorporated in the SWPPP and are anticipated to avoid indirect impacts to adjacent jurisdictional resources that occur outside the project impact area.

Additionally, the project would include the construction of a storm water treatment and drainage system that would collect and filter storm water runoff from the project site prior to discharging into the bay via drainage pipes. The existing drainage pipes at the project area would be replaced with one-way pipes that would not allow inlet of water with rising tides. No work to construct the storm water treatment and drainage system would be conducted within the water, high tide line, or rip-rap. With the installation of a storm water treatment and drainage system throughout the Bayside Performance Park and parking lot areas, and throughout the remaining area of EMPS, the existing drainage patterns would be maintained.

As discussed in Section 5.2, an increase in annual events and event attendances has the potential to increase the amount of litter generated at EMPS and unintentionally discharged into the San Diego Bay. Therefore, impacts to water quality would be potentially significant and mitigation is required.

5.4.2 Mitigation Measures

MM BIO-2 would serve to mitigate impacts associated with litter. As the project includes the incorporation of a SWPPP and a SWQMP, no additional mitigation is required.

5.4.3 Level of Significance after Mitigation

MM BIO-2 would also serve to reduce water quality impacts associated with litter generated at the project site. No additional mitigation is required, and impacts would be less than significant.

5.5 Issue 4: Wildlife Movement

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

5.5.1 Impact Analysis

As the project area does not support a wildlife corridor or nursery site, no significant direct or indirect impacts to wildlife corridors or nursery sites would occur due to the proposed project activities.

Permanent sources of light would be installed as part of the project, which has a potential for interference with the movement of migratory birds using the Pacific Flyway. The following lighting types would be installed as part of the project:

- **Security Lighting:** downward-projected or shielded lighting fixtures mounted on architectural structures (not on lighting stands) for wayfinding and security purposes and turned on all night, regardless if events are occurring.

- **Event Lighting:** used only during nighttime event hours to light pathways and other areas such as the food pavilions. Examples include accent lighting such catenary lighting (e.g., stringed lights), lighting posts, and lighting of the box office, stage and ancillary structures, seating areas, and internal venue pathways.

- **Public Art Lighting:** LED light display used during and outside events, for periods of approximately 5 to 10 minutes, occurring up to every 30 minutes.

Generally migratory bird species migrate northward during the months of late March through May and southward during the months of September through early November (CCC 2014a). Birds that migrate at night use the moon and stars for navigation. During clear weather, birds appear to be able to distinguish artificial lighting and light emanating from planets and stars. However, during cloudy or foggy weather, artificial lighting at night has the potential to cause night-migrating birds to collide with objects, become confused and drawn off course, and/or circle the light source becoming exhausted (CCC 2011, 2013, 2014a, and 2014b). These phenomena have been observed at lighted buildings, oil platforms, and athletic fields (CCC 2011 and 2014a). It has also been observed that lights emitting red wavelength energy tend to confuse and attract birds more than lights of other wavelengths (CCC 2014a).

Substantial existing light sources are present in the project's vicinity, within the adjacent Downtown development, which includes residential and commercial uses to the north and east and industrial uses to the southeast. EMPS is currently well-lit at night due to streetlights placed throughout the park and light trespass from adjacent downtown development. Additionally, Petco Park (inland location) occurs 0.33 mile northeast and the Tenth Avenue Marine Terminal (waterfront location) occurs 0.22 mile southeast of the project, emit substantial amounts of light resulting in sky glow and light trespass. While the project would increase the amount of lighting at EMPS (see Appendix D of the project's Draft EIR for the project's lighting plan), the majority of lighting would be installed in accordance with the City of San Diego outdoor lighting ordinance (City of San Diego Ordinance Number 20186) and would illuminate only to the extent necessary for security and wayfinding purposes. The exception to this is the project's LED light art installation, which would include LED lighting to display artwork, images, and colors, and event lighting, which would increase in usage due to the increased number of events proposed by the project.

It is likely that adverse impacts to the Pacific Flyway occur under existing conditions due to existing, well-lit development, such as athletic field lighting at Petco Park or terminal lighting at the Tenth Avenue Marine Terminal, that contribute to sky glow and light trespass throughout downtown San Diego. However, the project would result in a significant increase in the number of events held at EMPS each year, and the project's event and public art lighting has the potential to contribute to localized sky glow and light trespass. To ensure any effects of event and public art do not add substantial amounts of sky glow or light trespass into the surrounding environment and effects on nighttime migratory bird species are minimized, MM BIO-3 is proposed. MM BIO-3 would place limitations on the design of security, event, and public art lighting and place restrictions on event and public art lighting during peak periods of avian migration.

5.5.2 Mitigation Measures

MM BIO-3 Limitations on Lighting

The Symphony shall design and operate security, event, and public art lighting in accordance with the following limitations:

Security Lighting

All security lighting used throughout the project site shall be directed downward and/or shielded and of low intensity and shall be compliant with the City of San Diego outdoor lighting ordinance (City of San Diego Ordinance Number 20186).

Event Lighting

All event lighting used throughout the project site shall be directed downward and/or shielded and shall be compliant with the City of San Diego outdoor lighting ordinance (City of San Diego Ordinance Number 20186). The use of event lighting shall be limited to the number of Symphony performances and event rentals allowed each year (e.g., maximum of 110 nights annually). During the peak periods of avian migration (Late March through May and September through early November), all event lighting must be shut off by 11:00 p.m.

Public Art Lighting

Lighting utilized for the LED art installation shall not be projected into surrounding areas and shall be designed to minimize light trespass and sky glow to the highest extent feasible. The public art installation would not be utilized for advertising or signage purposes as it is intended to be a public art display. The District's Office of Arts and Culture shall approve of the public art design prior to its installation and display. The display shall last only for periods of approximately 5 to 10 minutes at a time. During the peak periods of avian migration (late March through May and September through early November), the art displays must end by 11:00 p.m.

5.5.3 Level of Significance after Mitigation

With incorporation of MM BIO-3, impacts would be reduced to less than significant.

5.6 Issue 5: Local Plan Conformance

Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

5.6.1 Impact Analysis

The District's PMP provides for the protection of biological resources. The ornamental trees within the project area are not protected under any preservation ordinance or other policy. The trees to be removed are on the District's list of undesirable trees and would not be planted today based on water usage, root damage, and other park maintenance concerns. Tree installation and maintenance will follow the District's Tenant Landscaping Improvements and Maintenance Standards (District 2009) and the District's Landscape Development Manual (District 1984). Therefore, the project would be consistent with District policies pertaining to biological resources.

5.6.2 Mitigation Measures

As the project is not in conflict with local policies or ordinance protecting biological resources, no recommended mitigation is required.

5.6.3 Level of Significance after Mitigation

Impacts would remain less than significant, and no mitigation is required.

5.7 Issue 6: Conservation Plan Conformance

Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP?

5.7.1 Impact Analysis

No adopted HCP, NCCP, or other approved local, regional, or state HCP is in place that includes the project site or surrounding vicinity; however, the San Diego Bay INRMP applies to the project area. The goal of the INRMP is to "ensure the long-term health, recovery, and protection of San Diego Bay's ecosystem in concert with the bay's economic, Naval, recreational, navigational, and fisheries needs" (U.S. Department of the Navy and Port of San Diego 2013). The intent of the INRMP is to provide direction for the good stewardship that natural resources require, while supporting the ability of the Navy and Port to achieve their missions and continue functioning within San Diego Bay. The INRMP includes detailed description of the current state of the ecosystem and a pathway to change for proceeding toward the goal and vision.

The project is not expected to change the ecosystem composition or result in a net loss of resources for birds, fish, or marine mammals. With incorporation of the mitigation measure discussed above, the project is consistent with the INRMP. Therefore, the project would not require additional mitigation for conservation plan conformance.

5.7.2 Mitigation Measures

As the project is not in conflict with a local, regional, or state plan, no mitigation is required.

5.7.3 Level of Significance after Mitigation

Impacts would remain less than significant, and no mitigation is required.

6.0 SUMMARY

The Applicant proposes EMPS park enhancements that would include tree removal and installation, and installation of lighting for a permanent performance stage. The 10.8-acre project site occurs as a peninsula within the San Diego Bay that is surrounding by urban development and open water in the city of San Diego, California.

The project would conform to the INRMP and the PMP. The project would avoid impacts to sensitive biological resources to the maximum extent feasible. No sensitive vegetation communities, sensitive plants species, or jurisdictional wetlands or waters would be impacted by the project.

Nesting bird species protected by the MBTA and CFGC have potential to nest within the project area. If construction occurs during the avian nesting season (February 1 to September 15), the project has the potential to cause significant direct and/or indirect impacts to nesting bird species. Mitigation measures have been identified that would reduce impacts to these species to less than significant.

An increased number of events and event attendances may result in a significant increase in litter within EMPS and ultimately San Diego Bay. Therefore, the project has the potential to cause significant indirect impacts to marine and coastal wildlife species. Mitigation measures have been identified that would reduce impacts to these species to less than significant.

The project's event and public art lighting has the potential to contribute to localized sky glow and light trespass and therefore has a potential to cause an adverse effect on bird species using the Pacific Flyway. To ensure any effects of event and public art do not add substantial amounts of sky glow or light trespass into the surrounding environment and effects on nighttime migratory bird species are minimized, mitigation measures have been proposed that would reduce impacts to less than significant.

Sincerely,

Kayo Valenti
Biologist

KOV:jg:sh

Attachments

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ATTACHMENTS

ATTACHMENT 1

Plant Species Observed

Attachment 1 Plant Species Observed			
Scientific Name	Common Name	Habitat	Origin
ANGIOSPERMS: MONOCOTS			
ARECACEAE	**PALM FAMILY**		
Chamaerops humilis L.	Mediterranean fan palm	ORN	I
Phoenix canariensis Chabaud	Canary Island palm	ORN	I
Phoenix reclinata	Senegal date palm	ORN	I
Washingtonia robusta H. Wendl.	Mexican fan palm	ORN	I
POACEAE (GRAMINEAE)	**GRASS FAMILY**		
Poa sp.	blue grass	ORN	I
STRELITZIACEAE	**BRODIAEA FAMILY**		
Strelitzia reginae	bird of paradise	ORN	I
ANGIOSPERMS: DICOTS			
APOCYNACEAE	**DOGBANE FAMILY**		
Carissa macrocarpa	Natal plum	ORN	I
ASTERACEAE	**SUNFLOWER FAMILY**		
Bellis perennis L.	English daisy	ORN	I
Cotula australis (Sieber ex Spreng.) Hook. f.	Australian cotula	ORN	I
Sonchus asper (L.) Hill ssp. *asper*	prickly sow thistle	ORN	I
Taraxacum officinale F.H. Wigg.	common dandelion	ORN	I
BRASSICACEAE (CRUCIFERAE)	**MUSTARD FAMILY**		
Capsella bursa-pastoris (L.) Medik.	shephard's purse	ORN	I
Lepidium didymum	lesser swine cress	ORN	I
CARYOPHYLLACEAE	**PINK FAMILY**		
Stellaria media (L.) Vill.	common chickweed	ORN	I
CHENOPODIACEAE	**GOOSEFOOT FAMILY**		
Chenopodium murale L.	nettle-leaf goosefoot	ORN	I
ERICACEAE	**HEATH FAMILY**		
Arbutus unedo	strawberry tree	ORN	I
EUPHORBIACEAE	**SPURGE FAMILY**		
Euphorbia peplus L.	petty spurge	ORN	I
FABACEAE (LEGUMINOSAE)	**LEGUME FAMILY**		
Erythrina caffra	coral tree	ORN	I

Attachment 1 Plant Species Observed			
Scientific Name	Common Name	Habitat	Origin
Medicago polymorpha L.	California burclover	ORN	I
Tifolium repens L.	white clover	ORN	I
GERANIACEAE	**GERANIUM FAMILY**		
Erodium moschatum (L.) L'Hér. ex Aiton	greenstem filaree	ORN	I
Geranium sp.	geranium	ORN	I
MAGNOLIACEAE	**MAGNOLIA FAMILY**		
Magnolia sp.	Magnolia	ORN	I
MALVACEAE	**MALLOW FAMILY**		
Malva neglecta Wallr.	common mallow, cheeses	ORN	I
MYRTACEAE	**MYRTLE FAMILY**		
Melaleuca quinquenervia	paperbark tree	ORN	I
Metrosideros excelsus	New Zealand Christmas tree	ORN	I
OLEACEAE	**OLIVE FAMILY**		
Olea europaea L.	olive	ORN	I
PLUMBAGINACEAE	**LEADWORT FAMILY**		
Limonium perezii (Stapf) F.T. Hubb.	Perez's marsh-rosemary	ORN	I
ROSACEAE	**ROSE FAMILY**		
Rhaphiolepis indica (L.) Lindl. ex Ker Gawl.	Indian hawthorn	ORN	I
SAPINDACEAE	**SOAPBERRY FAMILY**		
Cupaniopsis anacardioides	carrotwood	ORN	I
URTICACEAE	**NETTLE FAMILY**		
Urtica urens L.	dwarf nettle	ORN	I

Notes: Scientific and common names were primarily derived from the Jepson Flora Project (University of California 2017). In instances where common names were not provided in this resource, common names were obtained from Rebman and Simpson (2014). Additional common names were obtained from the USDA maintained database (USDA 2013) or the Sunset Western Garden Book (Brenzel 2001) for ornamental/horticultural plants.

VEGETATION COMMUNITY
ORN = Ornamental Plantings

ORIGIN
I = Introduced species from outside locality

ATTACHMENT 2

Wildlife Species Observed/Detected

Attachment 2 Wildlife Species Observed				
Scientific Name	Common Name	Occupied Habitat	On-Site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
BIRDS (Nomenclature from American Ornithologists' Union 2016 and Unitt 2004)				
ANATIDAE	**DUCKS, GEESE, & SWANS**			
Melanitta perspicillata	surf scoter	DB	C / W	O
PELECANIDAE	**PELICANS**			
Pelecanus occidentalis californicus	California brown pelican	U/D	F / Y	O
PHALACROCORACIDAE	**CORMORANTS**			
Phalacrocorax auritus albociliatus	double-crested cormorant	DB	F / W	O
Phalacrocorax pelagicus resplendens	pelagic cormorant	DB	F / W	O
RALLIDAE	**RAILS, GALLINULES, & COOTS**			
Fulica americana americana	American coot	DB	C / W	O
LARIDAE	**GULLS, TERNS, & SKIMMERS**			
Larus californicus	California gull	ORN	C / W	O
Larus occidentalis wymani	western gull	ORN	C / Y	O
COLUMBIDAE	**PIGEONS & DOVES**			
Columba livia	rock dove (I)	ORN	C / Y	O
TROCHILIDAE	**HUMMINGBIRDS**			
Calypte anna	Anna's hummingbird	ORN	C / Y	O
CORVIDAE	**CROWS, JAYS, & MAGPIES**			
Corvus brachyrhynchos hesperis	American crow	FO	C / Y	O
MIMIDAE	**MOCKINGBIRDS & THRASHERS**			
Mimus polyglottos polyglottos	northern mockingbird	ORN	C / Y	O
PARULIDAE	**WOOD WARBLERS**			
Setophaga [=*Dendroica*] *coronata*	yellow-rumped warbler	ORN	C / W	O
FRINGILLIDAE	**FINCHES**			
Haemorhous [=*Carpodacus*] *mexicanus frontalis*	house finch	ORN	C / Y	O

Attachment 2 Wildlife Species Observed				
Scientific Name	Common Name	Occupied Habitat	On-Site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
MAMMALS (Nomenclature from Baker et al. 2003)				
LEPORIDAE	**RABBITS & HARES**			
Sylvilagus audubonii	desert cottontail	ORN		S

(I) = Introduced species

VEGETATION COMMUNITIES/LAND COVER TYPES
DB = Deep Bay
FO = Fly Over
ORN = Ornamental Plantings
U/D = Urban/Developed generally not in large numbers

ABUNDANCE (birds only; based on Garrett and Dunn 1981)
C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat,

EVIDENCE OF OCCURRENCE
O = Observed
S = Scat

SEASONALITY (birds only)
W = Winter visitor; does not breed locally
Y = Year-round resident; probable breeder on-site or in vicinity

Desktop Geotechnical and Geologic Hazard Evaluation
Bayside Performance Park Enhancement Project and Port Master Plan Amendment
Embarcadero Marina Park South
San Diego, California

Prepared For:
RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, California 92101

PREPARED BY:
The Bodhi Group Inc.

Revised February 2017
Project No. 9105002

Revised February 3, 2017
Project No. 9105002

Mr. Michael L. Page, AICP
Senior Project Manager
RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, California 92101

Subject: Desktop Geotechnical and Geologic Hazard Evaluation
Bayside Performance Park Enhancement Project and Port Master Plan Amendment
Embarcadero Marina Park South
San Diego, California

Dear Mr. Page:

We are pleased to submit our desktop study geotechnical and geologic hazard evaluation and report in support of the Bayside Performance Park Enhancement Project and Port Master Plan Amendment. Our study summarizes the regional and local geology and focuses on the geologic hazards at the Project Site. We have included a map of the regional geology and a Site geologic hazards map.

Respectfully submitted,
THE BODHI GROUP INC

Sree Gopinath, P.E.
Principal Engineer

Jonathan Goodmacher, C.E.G, C.H.G.
Senior Geologist

Distribution: (1) Addressee

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EXECUTIVE SUMMARY

This Geotechnical and Geologic Hazard Evaluation (Study) identifies geologic hazards that could have potential adverse effects on the Bayside Performance Park Enhancement Project and Port Master Plan Amendment (Project). For this study, we reviewed relevant published geologic maps and the City of San Diego Guidelines, including the City of San Diego Seismic Safety Study Geologic Hazards and Faults map and the City of San Diego Guidelines for Geotechnical Reports. State-issued geologic hazard maps, Guidelines for Geologic/Seismic Consideration in Environmental Impact Reports and Geology, Guidelines for Preparing Geologic Reports for Regional-Scale Environmental and Resource Management Planning by the California Division of Mines, and in-house resources were also consulted.

Geologic hazards at the Site are listed below.

- Active or potentially active faults may underlie the Site and the potential for surface rupture may be high.
- The Site overlies human-placed fill (hereafter artificial fill) and unconsolidated marine sediments that will be subject to ground shaking caused by earthquakes on regional active faults.
- Based on the anticipated loose nature of artificial-fill placed decades ago and marine sediments underlying the Site, the potential for liquefaction-induced settlement and lateral spread is high.
- The potential for tsunami inundation is high.

Surface rupture caused by faulting can be mitigated by setting back structures for human occupancy away from the surface trace of clearly-defined faults or by foundation design that mitigates surface fault rupture. Adverse effects of ground shaking and liquefaction can be mitigated through ground improvement and/or the proper design and construction of deep foundation systems. Fatalities and injuries from tsunami inundation can be reduced through implementation of a tsunami early warning system, and public education and signage of actions to take in the event of a tsunami arriving at the Site.

1. INTRODUCTION

This report presents the results of our "desktop" evaluation of the geotechnical and geologic hazards potentially affecting the Bayside Performance Park Enhancement Project at Embarcadero Marina Park South (Site). The Site is located on the Embarcadero, at the terminus of Marina Park Way (Site, Figure 1). The purpose of our evaluation was to identify geotechnical and geologic conditions or hazards that might affect the proposed redevelopment. For this study, we reviewed relevant published geologic maps and the City of San Diego Guidelines. The following services were provided.

- Reviewed and summarized regional and local geology and identified potential geologic hazards, including submerged hazards.
- Reviewed relevant published geologic maps, State of California-issued geologic hazard maps, the City of San Diego Seismic Safety Study Geologic Hazards and Faults map, and the City of San Diego Guidelines for Geotechnical Reports.
- Researched and identified relevant geologic hazards listed in the "Guidelines for Geologic/Seismic Consideration in Environmental Impact Reports," California Geological Survey (California Division of Mines and Geology) Note 46 and "Guidelines for Preparing Geologic Reports for Regional-Scale Environmental and Resource Management Planning," California Geological Survey (California Division of Mines and Geology) Note 52, as amended or updated.
- Researched other City and County resources, and our in-house library of geotechnical and geological hazards such as faulting, seismicity, loss of soil by erosion (wave action), liquefiable soils, etc.
- Prepared this technical report that identifies geotechnical and geologic hazards. Included in this report is a map of the regional and Site geology showing distribution of surficial deposits and geologic units (Figure 2); a map of the faults in the Site vicinity (Figure 3); a map of the tsunami inundation zone in the Site vicinity (Figure 4); and a geohazards map (Figure 5) identifying areas susceptible to the potential geologic hazards described in this report. The report addresses "Geology and Soils" questions within Appendix G of the CEQA Guidelines (2016).

1.1. Significant Assumptions

Documentation and data provided by the client or from the public domain, and referred to in the preparation of this study, are assumed to be complete and correct and have been used and referenced with the understanding that the Bodhi Group assumes no responsibility or liability for their accuracy. The conclusions contained herein are based upon such information and documentation. Because Site conditions may change significantly over a short period of time and additional data may become available, data reported and conclusions drawn in this report are limited to current conditions and may not be relied upon on a significantly later date or if changes have occurred at the Site.

1.2. Limitations and Exceptions

Reasonable CEQA-level efforts were made during the Study to identify geologic hazards. "Reasonable efforts" are limited to information gained from information readily-accessible to the public. Such methods may not identify Site geologic or geotechnical issues that are not listed in these sources.

1.3. User Reliance

This report was prepared for use solely and exclusively by RECON Environmental, Inc. and the San Diego Unified Port District (Port). The report is not for the use or benefit of, nor may it be relied upon by, any other person or entity for any purpose without the advance written consent of the Bodhi Group. No other use or disclosure is intended or authorized by the Bodhi Group. In the preparation of this

report, the Bodhi Group has used the degree of care and skill ordinarily exercised by a reasonably prudent geotechnical professional in the same community and in the same time frame given the same or similar facts and circumstances. No other warranties are made to any third party, either expressed or implied.

2. PROJECT LOCATION AND DESCRIPTION

The Site, shown on Figure 1, is located at Embarcadero Marina Park South (EMPS) in the city of San Diego. The EMPS is located west of the San Diego Convention Center and is adjacent to San Diego Bay. The County of San Diego Tax Assessor's Parcel Number (APN) is 760-016-19.

The proposed project would develop a permanent outdoor performance venue on a 3.47-acre portion of the 10.8-acre EMPS (to be named the "Bayside Performance Park") as well as other public improvements throughout the EMPS. The Bayside Performance Park is situated in a grass lawn area of the northwestern portion of the EMPS. The Project includes the demolition of portions of the EMPS to accommodate construction of the permanent outdoor performance venue along with public improvements to the remaining portion of the EMPS.

The San Diego Symphony currently operates its Bayside Summer Nights performance series (Bayside Summer Nights: Summer Pops), at the Project site on a temporary basis during the summer season. The Bayside Summer Nights use portable and temporary facilities, including a stage, seating, bleachers, and concessions. These facilities are set up and removed each summer season. The proposed project would replace the portable and temporary facilities by constructing a permanent outdoor performance stage and ancillary structures within a portion of the EMPS suitable to accommodate a full-sized orchestra. This area, the Bayside Performance Park, would include removable seating for up to 10,000, an elevated lawn area over a sub-grade restroom facility, box office, food pavilions, public art, back-of-stage viewing deck, and perimeter fencing. Additional proposed modifications to the EMPS outside of the Bayside Performance Park include:

- Reconfiguration of the parking lot to add four parking spaces
- Replacement of the four existing basketball courts (two full-sized courts that are divided into four half-sized courts)
- Relocation of the existing fitness stations with replacement, as necessary
- Refurbishment of the existing public outdoor gazebo with similar materials as existing
- Refurbishment of the existing public restrooms with new facilities
- Widening and replacement of the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park area (on the northwestern portion of EMPS) with a 12-foot-wide promenade
- Installation of public access wayfinding signage throughout EMPS
- Installation of LED lighting to illuminate portions of the promenade and main access point to aid in nighttime wayfinding and create a safe nighttime environment
- Installation of wayfinding and public educational signage throughout EMPS

Specifically, the proposed project would include the construction of a new covered performance stage with moveable open-air guest seating areas accommodating up to 10,000 people. Additional back-of-house areas are proposed to be incorporated directly behind and adjacent to the stage. A permanent eight-foot tall slated metal fence is proposed to surround the back-of-house and stage areas and a 42-inch-tall slated metal perimeter fence will enclose the entire Bayside Performance Park. The fencing will be collapsible in key access locations which will remain open during non-performance hours. The project also would include a

box office and two event pavilions to be used for concessions/dining. The pavilions will be surrounded by permeable paving to accommodate outdoor seating/dining. Improvements would include an increase in grade at the center of the park to be covered with synthetic turf to create an elevated "event lawn" which allows for terraced views of the stage and the bay during events and for the public on non-event days. A 60-stall (men's and women's) restroom facility is proposed to be located beneath the event lawn with access via a series of stepped planter walls with ADA access located at each of the restroom entrances, and two gender-neutral restrooms at the ends of the facility to be open to the public during non-event days.

The Project also includes redevelopment of the EMPS and reconfiguration of the existing 128-space surface parking lot. The redevelopment would improve connectivity between the north and south ends of the EMPS, creating more usable park area during non-event days and would add four parking spaces for a total of 136 parking spaces. Material excavated during site grading will be used on site for fill and to create the elevated event lawn. Approximately 6,000 cubic yards (cy) of material is anticipated to be excavated and balanced on site as fill. A mechanical wetland/stormwater treatment and drainage system would be installed under the proposed project site, connecting to the existing storm drains on site. Flap gates on the existing stormwater outlet drains would added for one-way drainage to prevent flooding of the site during high tide. No work in the water or within the existing revetments would be conducted.

3. SITE HISTORY

As noted, the Site is located on Embarcadero Marina Park South on the City of San Diego waterfront. The proposed project site is located at 200 and 206 Marina Park Way, on the northwestern peninsula of the EMPS. The surrounding uses include the Marriot Marina to the north; Joe's Crab Shack and the Fifth Avenue Ferry Landing to the north/northeast; and, San Diego Bay to the west, south, and southeast. The San Diego Convention Center and Hilton Hotel are located across from the Marriot Marina and the Fifth Avenue Ferry Landing. The area is further surrounded by the City of San Diego's Marina and Gaslamp neighborhoods on the mainland and by Coronado Island across the bay (approximately 0.38 mile away).

The EMPS is accessible by vehicles generally by Interstate (I-5). Access from I-5 south is via Beardsley Street to East Harbor Drive. Access from I-5 north is via Cesar E. Chavez Parkway to East Harbor Drive. From East Harbor Drive, access to the park is via Park Boulevard, which continues into Convention Way and Marina Park Way. Marina Park Way dead-ends at the EMPS parking lot. Pedestrian access to the EMPS is via the Embarcadero Promenade (a bayside pedestrian walkway) from the north. A public access way also links the Marriott Hotel, Convention Center, and Hilton Hotel with the Marriot Marina and the EMPS. The Harbor Drive Pedestrian Bridge provides pedestrian access from Park Boulevard, and is elevated over East Harbor Drive and the adjacent railroad tracks, ending near the Hilton Hotel where it meets with the bayside promenade.

4. GEOLOGY

San Diego is located within the western (coastal) portion of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges encompass an area that roughly extends from the Transverse Ranges and the Los Angeles Basin, south to the Mexican border, and beyond another approximately 800 miles to the tip of Baja California (Norris and Webb, 1990; Harden, 1998). The geomorphic province varies in width from approximately 30 to 100 miles, most of which is characterized by northwest trending mountain ranges separated by subparallel fault zones. In general, the Peninsular Ranges are underlain by Jurassic-age metavolcanic and metasedimentary rocks and by Cretaceous-age igneous rocks of the southern California batholith. Geologic cover over the basement rocks in the westernmost portion of the province in San Diego County generally consists of Upper Cretaceous-, Tertiary-, and Quaternary-age sedimentary rocks.

Structurally, the Peninsular Ranges are traversed by several major active faults. The Elsinore, San Jacinto, and the San Andreas faults are major active fault systems located northeast of San Diego and the Rose Canyon, San Diego Trough, Coronado Bank and San Clemente faults are major active faults located within or west-southwest of San Diego. Major tectonic activity associated with these and other faults within this regional tectonic framework is generally right-lateral strike-slip movement. These faults, as well as other faults in the region, have the potential for generating strong ground motions in the project area. Further discussion of faulting relative to the Site is provided in following sections of this report.

Figure 2, modified from Kennedy and Tan (2008), shows the regional geology. Based on mapping by Kennedy and Tan (2008) the Site is directly underlain by unconsolidated marine sediments. According to the accompanying report (Kennedy and Tan, 2008), the marine sediments are composed mostly of very fine- to medium-grained sand and silt. However, based on historical research (Canada, 2006 and topographic maps in The Bodhi Group Archives) the EMPS is constructed of artificial fill soil. Documentation on the placement of that fill was not available. The artificial fill was placed and EMPS was constructed in the 1970s and opened to the public in 1976.

Figure 3 shows the proximity of the Site to nearby mapped Quaternary faults. A Quaternary fault is defined by the State of California (Jennings and Bryant, 2010) as a fault that shows evidence of movement in the last 1.6 million years. Quaternary (Holocene and Pleistocene) faults can be classified as either active or potentially active faults. Active faults are those Quaternary Holocene faults which have been shown to have ruptured in the last 11,000 years. Potentially active faults are those Quaternary Pleistocene faults which have been shown to have ruptured during the 1.6 million years but not within the last 11,000 years.

5. GEOLOGIC HAZARDS

Geologic hazards that the Site is susceptible to or may be susceptible to include: surface fault rupture; seismic shaking and ground motion from earthquakes; liquefaction, seismic settlement, lateral spread; and inundation by tsunamis. The Site is not subject to the following geologic hazards: landslides; and expansive soils.

5.1. Surface Fault Rupture

Surface fault rupture is the result of movement on an active fault reaching the surface. Figure 3 shows the Site in relation to nearby known active faults, of which the Rose Canyon Fault is the most significant. The Rose Canyon Fault is capable of producing a magnitude 7.2 earthquake (Cao et al, 2003). Mapped active portions of the Rose Canyon Fault are located within several hundred feet of the site.

As shown on Figures 3 and 5 an active strand of the Rose Canyon Fault trends in the direction of the site from the south. Although the site is not within a State of California Earthquake Fault Zone (State of California, 2003) or the City of San Diego-designated "Downtown Special Fault Zone," based on the active fault strand projecting toward the site it is probable that the City of San Diego will require a site-specific fault rupture hazard assessment. The goal of such a study would be to confirm that the site does not overlie an active fault capable of surface rupture.

5.2. Seismicity and Ground Motion

The Site will be subject to hazards caused by ground shaking during seismic events on active faults in the region. Figure 3 shows the locations of known active faults in the vicinity of the Site. As noted, an active fault is defined by the State Mining and Geology Board as one which has experienced surface displacement within the Quaternary Holocene, approximately the last 11,000 years (California Geological Survey, 2007).

Ground shaking during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and the type of geologic material underlying the area. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments. As noted, the Site is located on San Diego Bay and is underlain by artificial fill and unconsolidated marine sediments. The fill and unconsolidated marine sediments will be subject to shaking hazards caused by earthquakes on regional active faults. The potential for ground motion at the Site is high. Design measures may consider ground improvement or structures on deep foundations to minimize the effects of ground shaking.

Based on a Probabilistic Seismic Hazards Ground Motion Interpolator provided by the California Department of Conservation (2008; accessed August 2016), the Site is located in a zone where the horizontal peak ground acceleration having a 2 percent probability of exceedance in 50 years is 0.561 g and 10 percent in 50 years is 0.256 g (where g represents the acceleration of gravity). This value is based on the proximity of the site to known active faults (e.g. Rose Canyon and others in the southern California area) and projecting earthquake rates based on earthquake history and the slip rates of faults.

5.3. Liquefaction, Seismically Induced Settlement, and Lateral Spread

The Site lies within a City of San Diego-designated liquefaction hazard zone (Geologic Hazard Map Symbol 31; City of San Diego, 2008) as shown on Figure 5. Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by a relatively shallow groundwater table are susceptible to liquefaction. Based on the potentially loose nature of the materials (artificial fill and unconsolidated marine sediments) underlying the Site, the potential for liquefaction is high.

Among the potential hazards related to liquefaction are seismically-induced settlement and lateral spread. Seismically-induced settlement is caused by the reduction of shear strength due to loss of grain-to-grain contact during liquefaction, and may result in dynamic settlement on the order of several inches to several feet. Lateral spreading of the ground surface during an earthquake usually takes place along weak shear zones that have formed within a liquefiable soil layer. Lateral spreading has generally been observed to take place in the direction of a free-face (i.e., retaining wall, slope, channel, etc.) but has also been observed to a lesser extent on ground surfaces with gentle slopes. The existing revetment

covered slopes may be considered a free-face. Failure of those slopes would impact the Site and, therefore, the potential for lateral spread is high. An analysis of the slope stability is recommended to evaluate potential failure during a seismic event. The analysis may consider potential improvements in the event of slope failure to minimize the effects of liquefaction-induced settlement.

An empirical model developed by Bartlett and Youd (1995, revised 1999) is typically used to predict the amount of lateral spread or horizontal ground displacement within a site. For sites located in proximity to a free-face, such as the Site slopes, the amount of lateral ground displacement is strongly correlated with the distance of the construction to the slope. Other factors such as earthquake magnitude, distance from the earthquake epicenter, thickness of the liquefiable layers, and the fines content and particle sizes of the liquefiable layers will also affect the amount of settlement or lateral ground displacement. The design should consider estimating the potential lateral spread or horizontal ground displacement at the Site using this or other equivalent models.

5.4. Tsunami Inundation

Tsunamis are long seismic sea waves (long compared to ocean depth) generated by sudden movements of the sea floor caused by submarine earthquakes, landslides, or volcanic activity. The Site lies within the tsunami inundation zone mapped by the California Geologic Survey Tsunami Inundation Map for the Point Loma Quadrangle (CGS, 2009) as shown on Figure 4. The potential for tsunami inundation at the Site is high. Fatalities and injuries from tsunami inundation can be reduced through implementation of a tsunami early warning system, and public education and signage of actions to take in the event of a tsunami arriving at the Site.

6. FURTHER GEOTECHNICAL STUDIES

Development and new construction should include geotechnical and fault rupture hazard investigations that conform to the standards and conditions set forth by the City of San Diego. Conformance with these standards will mitigate surface fault rupture, seismic shaking, and liquefaction hazards to currently accepted levels.

7. LIMITATIONS

This report was prepared in general accordance with current guidelines and the standard-of-care exercised by professionals preparing similar documents near the Site. No warranty, expressed or implied, is made regarding the professional opinions presented in this document. As this report represents a review of existing documentation on geotechnical conditions of the planning areas rather than in-depth on-site investigation, it cannot account for variations in individual Site conditions or changes to existing conditions. Please also note that this document did not include an evaluation of environmental hazards.

The conclusions, opinions, and recommendations as presented in this document, are based on a desktop analysis of data, some of which were obtained by others. It is our opinion that the data, as a whole, support the conclusions and recommendations presented in the report.

The purpose of this study was to evaluate geologic and geotechnical conditions within the planning areas to assist in the preparation of environmental impact documents for the project. Comprehensive geotechnical evaluations, including subsurface exploration and laboratory testing, should be performed prior to design and construction of structural improvements. Any future projects on individual sites in the planning areas will require site-specific geotechnical studies as required by State and City regulations.

It should be understood that the conditions of a Site will change with time as a result of natural processes and the activities of man at the subject Site or nearby Sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this document may, therefore, be invalidated over time, in part or in whole, by changes over which the author has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. The author should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

Data presented in this report should not be relied on for bidding purposes. This document is intended exclusively for use by RECON and the Port. Any use or reuse of the findings, conclusions, and/or recommendations of this document by parties other than the client is undertaken at said parties' sole risk.

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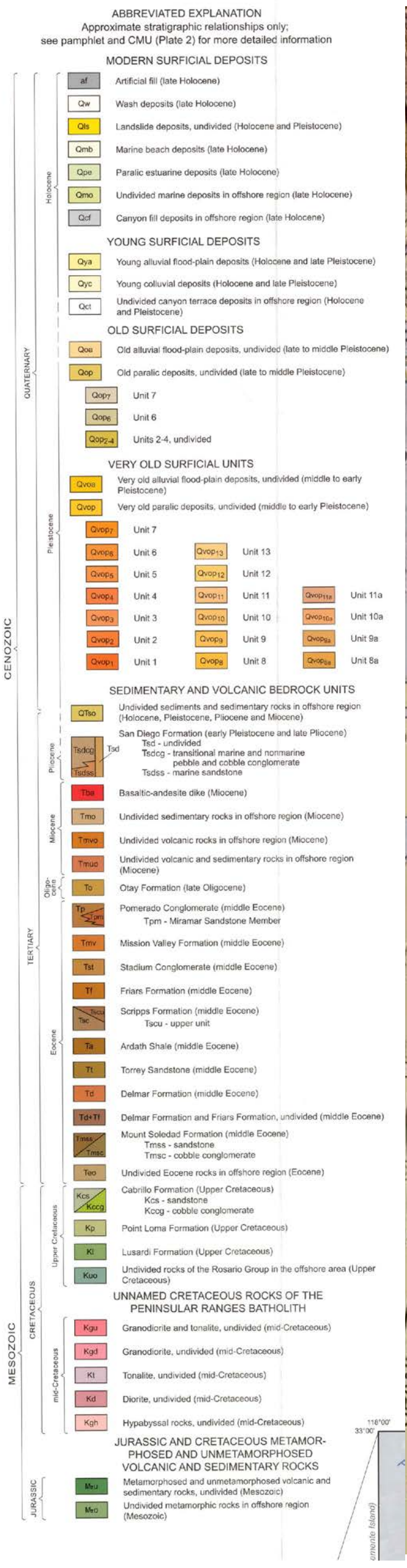
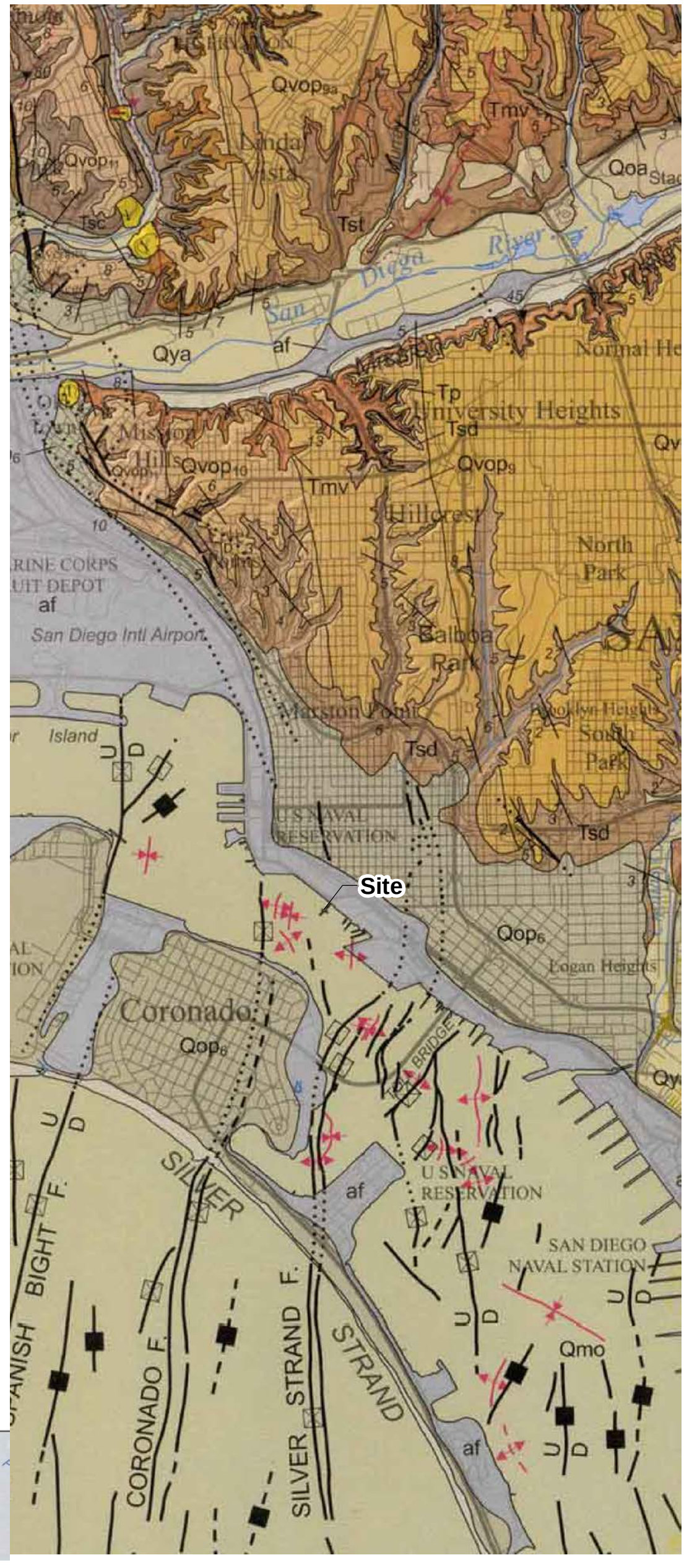
FIGURES

N W E S	Project No. 9105002	THE BODHI GROUP INNOVATING | SUSTAINING | SOLVING	**Project Site Location Map Bayside Performance Park Enhancement Project**
	Date: 02/2017		
0 200 400 Feet	Drawn By: SG	Figure 1	**Embarcadero Marina Park South San Diego, California**





N W E S	Project No. 9105002	THE BODHI GROUP INNOVATING | SUSTAINING | SOLVING	**Regional Geology Bayside Performance Park Enhancement Project**
	Date: 02/2017		
Not to Scale	Drawn By: SG	Figure 2	**Embarcadero Marina Park South San Diego, California**

Geologic Map of the San Diego 30' x 60' Quadrangle,2008, California Regional Geologic Map Series, 1:100,0000 Scale, Map No. 3 Plate 1 of 2

Reference: San Diego Association of Governments Regional GIS Data Warehouse Publication. "Earthquake_Faults_SD" 2016. San Diego Geographic Information Source – Joint Powers Authority.

N
W E
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0 1,500 3,000 Feet

Project No. 9105002

Date: 02/2017

Drawn By: SG

Figure 3

Fault Map
Bayside Performance Park Enhancement Project

Embarcadero Marina Park South
San Diego, California

Reference: State of California, 2009, Tsunami Inundation Map for Emergency Planning, Point Loma Quadrangle, San Diego County; produced by California Emergency Management Agency, California Geological Survey, and University of Southern California – Tsunami Research Center; dated June 1, mapped at 1:24,000 scale.

N
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0 500 1,000 Feet

Project No. 9105002

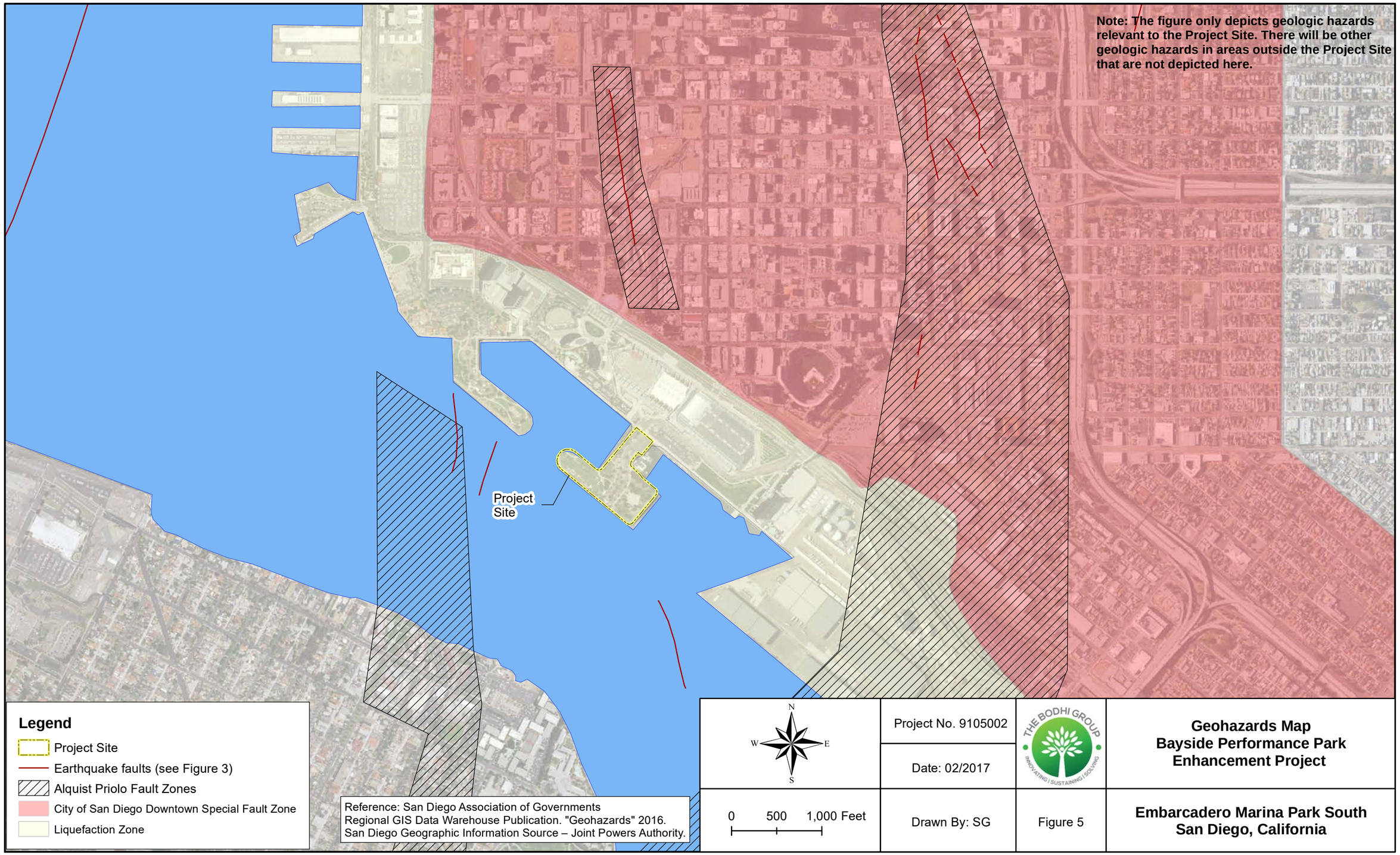
Date: 02/2017

Drawn By: SG

Figure 4

Tsunami Inundation Map
Bayside Performance Park
Enhancement Project

Embarcadero Marina Park South
San Diego, California



Geohazards Map
Bayside Performance Park Enhancement Project

Embarcadero Marina Park South
San Diego, California

Greenhouse Gas Analysis for the Bayside Performance Park Enhancement Project and Port Master Plan Amendment, San Diego, California

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ATTACHMENT

1: CalEEMod Output – Existing Use and Project Emissions

Acronyms

AB	Assembly Bill
Applicant	San Diego Symphony Orchestra
BAU	business as usual
BTU	British thermal unit
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards Code,
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalent
CPUC	California Public Utilities Commission
District	San Diego Unified Port District
EMPS	Embarcadero Marina Park South
EO	Executive Order
GHG	greenhouse gas
GWP	Global warming potential
kWh	kilowatt hour
LCFS	Low Carbon Fuel Standard
LED	light-emitting diode
MMT	million metric ton
mpg	mile per gallon
MPO	Metropolitan Planning Organizations
MT	metric ton
MWELO	Model Water Efficient Landscape Ordinance
mWh	megawatt hour
N_2O	nitrous oxide
PMPA	Port Master Plan Amendment
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas & Electric
Symphony	San Diego Symphony Orchestra
U.S. EPA	U.S. Environmental Protection Agency
VMT	vehicle miles traveled

Executive Summary

The Applicant, San Diego Symphony Orchestra (Symphony), proposes the Bayside Performance Park Enhancement Project and Port Master Plan Amendment (project), which includes public amenity enhancements at the Embarcadero Marina Park South and associated discretionary actions, including, without limitation, a Port Master Plan Amendment (PMPA) and a non-appealable Coastal Development Permit. The project entails development of a permanent venue for the Symphony at the Embarcadero Marina Park South (EMPS) in the city of San Diego, California, on tidelands under the jurisdiction of the San Diego Unified Port District (District). The project would replace the current practice of setting up and taking down a temporary stage each season for the Symphony's Bayside Summer Nights performances. The project site is a public park with grass areas, walkways, a gazebo, basketball courts, and fitness stations. The project proposes enhancement of park amenities and installation of a permanent performance stage, including a synthetic turf seating area, a box office, dressing rooms, restrooms, and food pavilions.

This report evaluates the potential global climate change impacts associated with the project. In accordance with California Environmental Quality Act (CEQA), this analysis evaluates the significance of the global climate change impacts in terms of whether (1) the project would result in greenhouse gas (GHG) emissions that may have a significant impact on the environment and (2) the project would conflict with plans, policies, and regulations adopted for the purpose of reducing GHG emissions.

Project emissions would be associated with project construction and project operation. Project emissions in 2020 were assessed for consistency with a GHG emissions reduction target derived from the District's Climate Action Plan (CAP) forecasts for open space tenant subtypes, a 23 percent reduction from the business-as-usual (BAU) scenario. Project emissions in 2030 were assessed for consistency with a 2030 GHG emissions reduction target was derived from the District's 2020 GHG emission reduction target with modifications to reflect parallel statewide reductions from land use-driven sectors between 2020 and 2030. The 2030 GHG emission threshold was determined to be a 64 percent reduction from the BAU scenario.

Maximum operation of the project in 2020 could generate 3,000 metric tons (MT) of carbon dioxide equivalent (CO_2E). However, based on anticipated Bayside Performance Park programming (i.e., event schedule) the project would generate 1,792 MT CO_2E in 2020. Without mitigation, project emissions in 2020 would not achieve the District's GHG emissions reduction target for open space. Mitigation measure GHG-1 would require the Applicant to provide a transit subsidy valued at $5.00 to each event attendee to reduce the number of vehicle trips and associated GHG emissions for each event. With incorporation of mitigation measure GHG-1, the project would achieve a 33 percent reduction from the BAU scenario and therefore would exceed the District's 2020 GHG emissions reduction target of 23 percent from BAU. Therefore, the project would comply with the CAP and would meet or exceed the District's GHG emissions reduction target for open space.

The project would generate 1,838 MT CO_2E in 2030. Without mitigation, the project would not achieve the District's 2030 GHG reduction goal for open space. Mitigation measures GHG-2 through GHG-9 would require the Applicant to mitigate project GHG emissions associated with energy use, area sources, water use, solid waste disposal, and construction. Specific mitigation would include light-emitting diode (LED) fixtures, solar photovoltaic panels, high-efficiency water heaters, all-electric landscaping equipment, low-flow water fixtures, drought-tolerant landscaping, increased recycling, and use of construction equipment that meets voluntary California Air Resources Board-certified Tier IV Final standards. With incorporation of all feasible mitigation measures the project would achieve a 50 percent reduction from the BAU scenario. Therefore, project emissions would not achieve the District's 2030 GHG goal of 64 percent reduction from the BAU scenario. Impacts would therefore be significant and unavoidable.

As the project would achieve 2020 GHG emissions reduction targets derived from the District's CAP forecasts, the project would not impede achievement of 2020 state reduction goal codified by Assembly Bill 32. As the project would not achieve the District's 2030 GHG emissions reduction target, the project may impede the 2030 state reduction goal identified by Executive Order B-30-15 and codified by Senate Bill 32 and may also impede the 2050 state reduction goal identified by Executive Order S-3-05. Impacts would therefore be significant and unavoidable.

Local plans to reduce GHG emissions include the District's CAP. The project was assessed for conformity with CAP strategies related to event or open space (includes parks) land uses. The project would be consistent with these CAP strategies; therefore, the project would not conflict with implementation of local plans, policies, or regulations adopted with the intent to reduce GHG emissions.

1.0 Introduction

This report evaluates the Bayside Performance Park Enhancement Project and Port Master Plan Amendment's (project's) contribution of greenhouse gas (GHG) emissions to statewide GHG emissions and its effect on applicable GHG reduction plans. To evaluate the incremental effect of project development on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of global climate change. Therefore, Section 1.2 of this report provides an overview of global climate change.

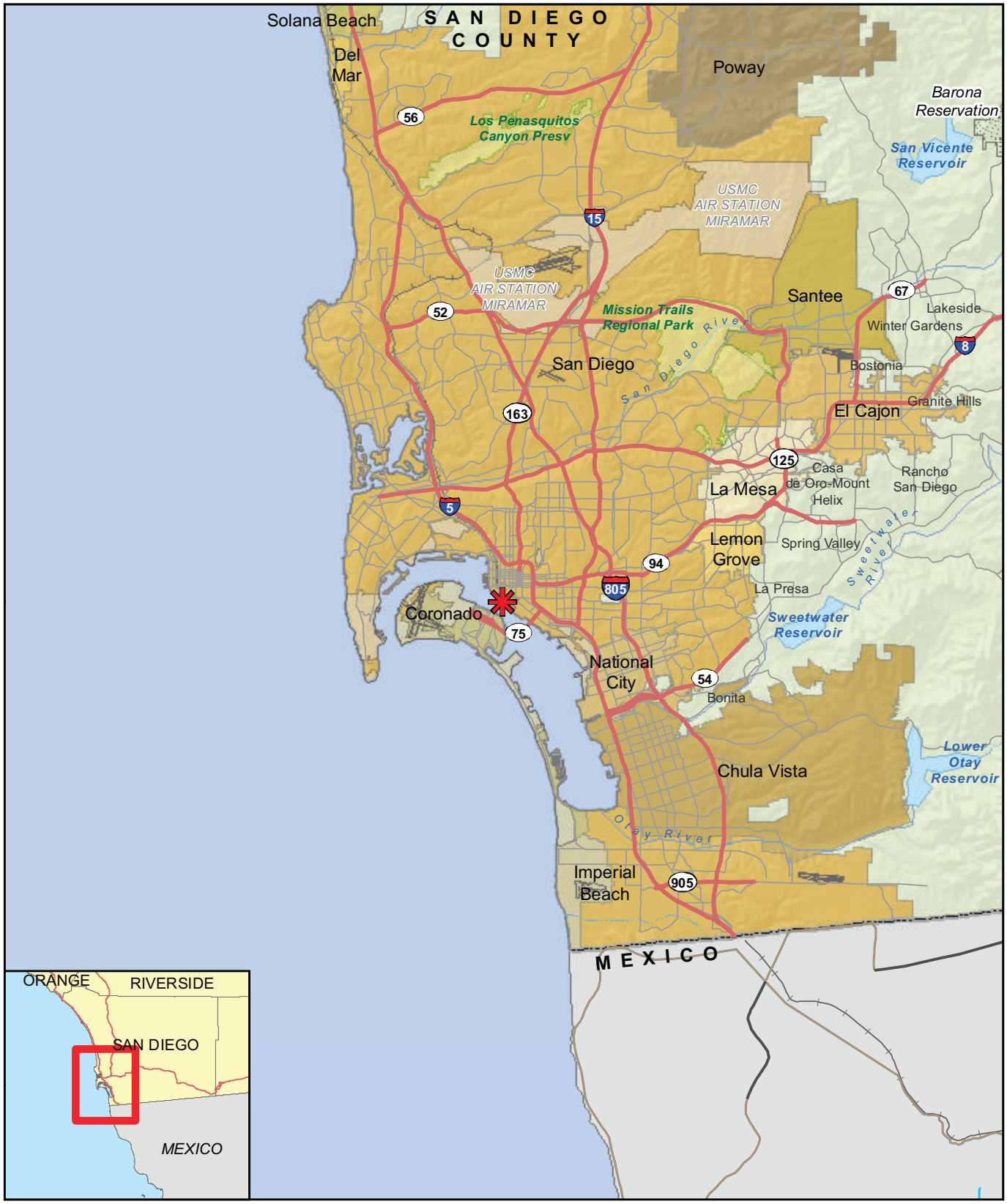
1.1 Project Description

The project includes public park enhancements at the Embarcadero Marina Park South (EMPS) and associated discretionary actions, including, without limitation, a Port Master Plan Amendment (PMPA) and a non-appealable Coastal Development Permit. The project would replace the current seasonal setup and takedown of a temporary stage for the Symphony's Bayside Summer Nights performances. The park enhancements would include public amenity enhancements throughout EMPS and the installation of a permanent performance stage and event venue within a portion of EMPS. The PMPA would amend the Centre City Embarcadero Planning District Project List (Table 11 of the Port Master Plan) to include the project. The applicant is the San Diego Symphony Orchestra (Symphony).

The project includes park enhancements including the replacement and enhancement of public park amenities such as walkways, a gazebo, basketball courts, and fitness stations throughout EMPS and installation of a permanent performance stage and event venue, including a synthetic turf seating area, box office, dressing rooms, restrooms, and food pavilions, within a portion of EMPS to be named the Bayside Performance Park. The project would install one electric vehicle-charging station that services two "park visitor only" parking stalls located on the eastern portion of the parking lot.

Project construction would begin in October 2018 and would last approximately 8 months, followed by a 1- to 2-month commissioning and site testing phase, for a total construction duration of up to 10 months. Once completed, the redeveloped 10.8-acre EMPS would comprise approximately 1.50 acres of public walkway area, 2.46 acres of natural lawn area, 2.36 acres of synthetic turf area, 0.35 acre of permeable pavers, 1.12 acres of concrete pavers, and a 1.80-acre public parking lot. The performance stage would have a footprint of approximately 0.29 acre. The Bayside Performance Park area would cover approximately 3.47 acres of the EMPS, or approximately 32 percent of EMPS.

Figure 1 shows the regional location. Figure 2 shows an aerial photograph of the project vicinity. Figure 3 shows the proposed site plan.



Project Location

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FIGURE 1

Regional Map

Image Source: Nearmap (flown July 2016)

0 Feet 650

Project Location

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FIGURE 2

Project Vicinity Map

Map Source: Tucker Sadler

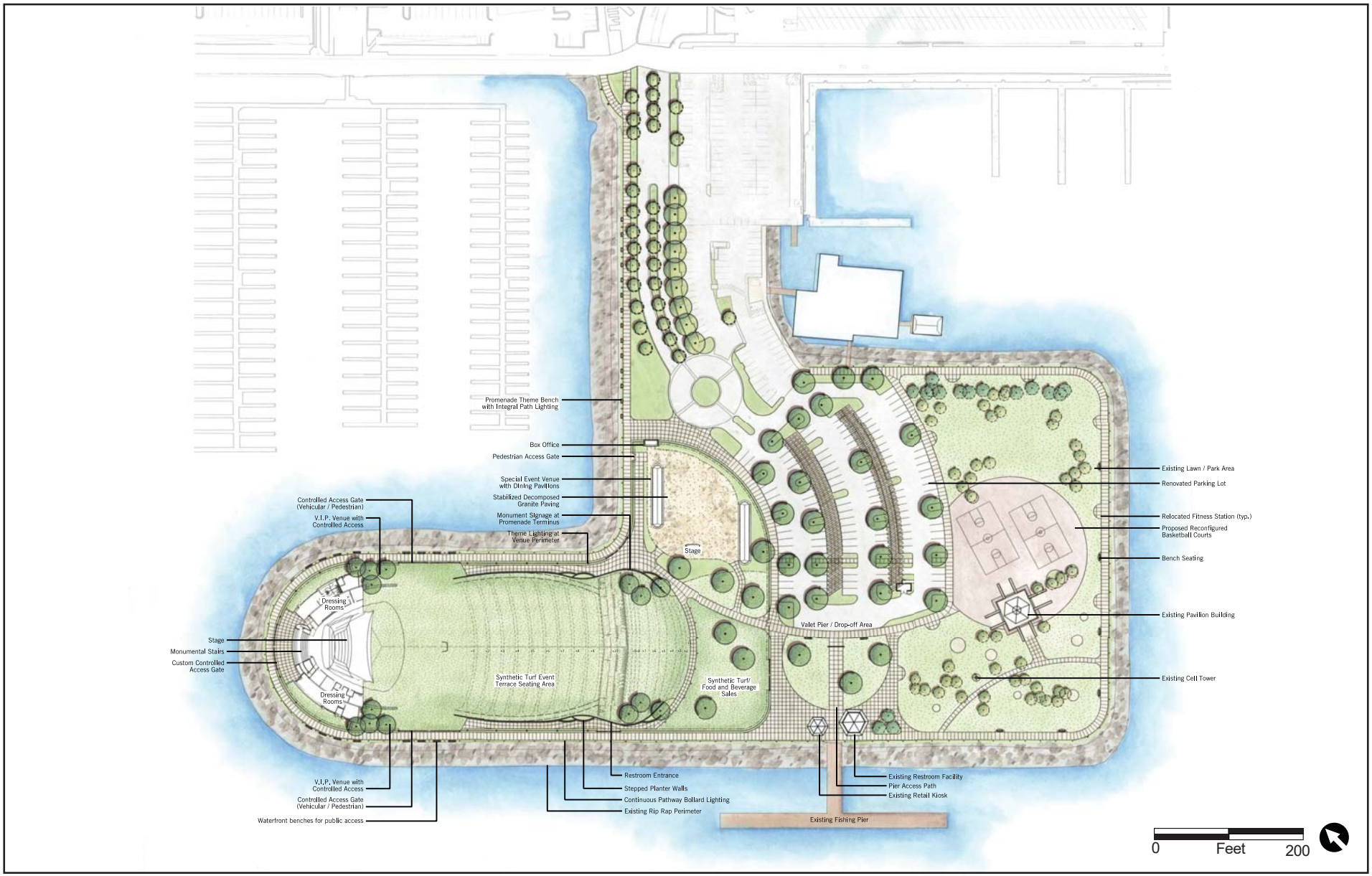

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FIGURE 3
Site Plan

1.2 Understanding Global Climate Change

Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include: volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is the collective of human actions taking place throughout the world that contributes to climate change, it is quintessentially a global or cumulative issue.

1.3 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors, including chemical reactivity of the gas, also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO_2). Because CO_2 is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH_4) has a shorter atmospheric lifetime than CO_2, it has a 100-year GWP of 25; this means that CH_4 has 25 times more effect on global warming than CO_2 on a molecule-by-molecule basis.

The GWP is officially defined as (U.S. Environmental Protection Agency [U.S. EPA] 2010):

> The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

GHG emissions estimates are typically represented in terms of equivalent metric tons (MT) of CO_2 equivalent (CO_2E). CO_2E emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT CO_2E and can be summed to represent the total potential of these gases to warm the global climate. Table 1 summarizes some of the most common GHGs.

Table 1
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
Carbon dioxide (CO_2)	50–200	1	1
Methane (CH_4)*	12.4	28	84
Nitrous oxide (N_2O)	121	265	264
HFC-23	222	12,400	10,800
HFC-32	5.2	677	2,430
HFC-125	28.2	3,170	6,090
HFC-134a	13.4	1,300	3,710
HFC-143a	47.1	4,800	6,940
HFC-152a	1.5	138	506
HFC-227ea	38.9	3,350	5,360
HFC-236fa	242	8,060	6,940
HFC-43-10mee	16.1	1,650	4,310
CF_4	50,000	6,630	4,880
C_2F_6	10,000	11,100	8,210
C_3F_8	2,600	8,900	6,640
C_4F_{10}	2,600	9,200	6,870
c-C_4F_8	3,200	9,540	7,110
C_5F_{12}	4,100	8,550	6,350
C_6F_{14}	3,100	7,910	5,890
SF_6	3,200	23,500	17,500

SOURCE: Intergovernmental Panel on Climate Change 2014.
GWP = Global warming potential

All of the gases in Table 1 are produced by both biogenic (natural) and anthropogenic (human) sources. These are the GHGs of primary concern in this analysis. CO_2 would be emitted by the project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of CH_4 and nitrous oxide (N_2O) would be emitted from the same project operations.

2.0 Existing Conditions

2.1 Environmental Setting

2.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons (MMT) of CO_2E. Table 2 shows the estimated statewide GHG emissions for the years 1990, 2005, and 2014.

Table 2
California GHG Emissions by Sector in 1990, 2008, and 2014

Sector	1990 Emissions in MMT CO_2E (% total)[1,2]	2005 Emissions in MMT CO_2E (% total)[2,3,4]	2014 Emissions in MMT CO_2E (% total)[2,3,4]
Sources			
Agriculture	23.4 (5%)	34.45 (7%)	36.11 (8%)
Commercial	14.4 (3%)	14.27 (3%)	14.61 (3%)
Electricity Generation	110.6 (26%)	107.85 (22%)	88.24 (20%)
High GWP	--	7.70 (2%)	17.15 (4%)
Industrial	103.0 (24%)	95.41 (20%)	93.32 (21%)
Recycling and Waste	--	7.94 (2%)	8.85 (2%)
Residential	29.7 (7%)	27.98 (6%)	23.73 (5%)
Transportation	150.7 (35%)	184.21 (38%)	159.53 (36%)
Forestry (Net CO_2 flux)[5]	-6.5	--	--
Not Specified	1.3	--	--
TOTAL	**426.6**	**479.81**	**441.54**

SOURCE: CARB 2007 and 2016.
MMT CO_2E = million metric tons of CO_2 equivalent
[1]1990 data was retrieved from the CARB 2007 source.
[2]Quantities and percentages may not total properly due to rounding.
[3]2005 and 2014 data was retrieved from the CARB 2016 source.
[4]Reported emissions for key sectors. The inventory totals for 2005 and 2014 did not include Forestry or Not Specified sources.

As shown in Table 2, statewide GHG source emissions totaled about 427 MMT CO_2E in 1990, 480 MMT CO_2E in 2005, and 442 MMT CO_2E in 2014. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. However, transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

2.1.2 Regional GHG Inventory

A San Diego regional emissions inventory that took into account the unique characteristics of the region was prepared by the University of San Diego School of Law, Energy Policy Initiative Center in 2010. The inventory is duplicated in Table 3. The sectors included in this inventory are somewhat different from those in the statewide inventory, which is based on the 2008 Scoping Plan (CARB 2008) categories.

Table 3
San Diego County GHG Emissions By Sector in 2010

Sector	2010 Emissions in MMT CO_2E (% total)[1]	
Agriculture/Forestry/Land Use	0.05	0.2%
Waste	0.6	1.8%
Electricity	8.3	25.0%
Natural Gas Consumption	2.9	8.7%
Industrial Processes & Products	1.8	5.4%
On-Road Transportation	14.4	43.4%
Off-Road Equipment and Vehicles	1.4	4.2%
Civil Aviation	1.9	5.7%
Rail	0.32	1.0%
Water-Borne Navigation	0.1	0.3%
Other Fuels/Other	1.58	4.8%
Land Use Wildfires	0.28	0.8%
Development (Loss of Vegetation)	0.18	0.5%
Sequestration	-0.66	-0.5%
TOTAL	**33.15**	

SOURCE: University of San Diego 2013.
[1]Percentages may not total 100 due to rounding.

Similar to the statewide emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use.

2.1.3 Local GHG Inventory

The San Diego Unified Port District (District) has inventoried all emissions attributable to land uses within the District. Their 2006 emissions inventory is duplicated in Table 4. As compared to the regional or statewide inventories, emissions in the District's inventory are more heavily associated with industrial, hospitality, and maritime industries (e.g., off-road transportation emissions are attributable to ocean-going vessels and boats).

Table 4 San Diego Port District GHG Emissions By Sector in 2006		
Sector	2006 Emissions in MT CO_2E (% total)[1]	
Electricity	173,192	21.0%
Natural Gas	135,516	16.4%
On-road Transportation	314,870	38.1%
Off-Road Transportation	172,929	20.9%
Water Use	13,166	1.6%
Waste	16,757	2.0%
TOTAL	**826,429**	
SOURCE: District 2013		

2.1.4 On-Site GHG Emissions

The project site is currently developed with EMPS as a 10.8-acre site that includes lawn/park areas, walkways, a gazebo, two basketball courts, and a parking lot. Existing sources of GHG emissions associated with EMPS include vehicle use, electricity demand (park and parking lot lighting), water use (landscaping), and area sources (landscaping equipment). The project would not substantially reduce vehicle use or electricity demand; the project would reduce existing water use and area sources by replacing 4.12 acres of grass areas with synthetic turf (2.36 acre), permeable pavers (0.35 acre), concrete pavers (1.12 acres), or the performance stage structure (0.29 acre). Other areas would remain. Following the methodology discussed in Section 4.1, existing GHG emissions associated with the project site were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.1 (California Air Pollution Control Officers Association [CAPCOA] 2016), and the results are summarized in Table 5. The CalEEMod output is contained in Attachment 1.

Table 5 Project Site GHG Emissions	
Emission Source	2016 Emissions in MT CO_2E (% total)[1]
Vehicles	586
Energy Use	30
Area Sources	>1
Water Use	20
Solid Waste Disposal	25
Setup and Takedown	71
TOTAL	**733**
[1] Quantities and percentages may not total properly due to rounding.	

As shown in Table 5, setup and takedown of the temporary venue generates 71 MT CO_2E. As setup and takedown occurs each year, these emissions are not amortized. Overall emissions associated with setup, operation, and takedown of the existing venue generates 733 MT CO_2E per year.

2.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The following is a discussion of the federal, state, and local plans and regulations most applicable to the project.

2.2.1 Federal

2.2.1.1 U.S. Environmental Protection Agency

The U.S. EPA has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the project is the Energy Star program.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy-efficient products and practices. Tools and initiatives include the Energy Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2013, which provides information on exceptional products that represent the leading edge in energy-efficient products in 2013 (U.S. EPA 2013).

2.2.1.2 Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the United States. Current CAFE standards require vehicle manufacturers of passenger cars and light-duty trucks to achieve an average fuel economy of 35.5 miles per gallon by 2016 and an average fuel economy of 54.5 miles per gallon by 2025. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

2.2.2 State

2.2.2.1 Statewide GHG Emissions Reduction Targets

S-3-05—Statewide GHG Emission Targets

This executive order (EO) establishes the following GHG emissions reduction goals for the state of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the Secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006, and has been updated every two years.

B-30-15—2030 Statewide GHG Emissions Reduction Target

This EO, issued on April 29, 2015, establishes an interim GHG emissions reduction goal for the state of California to reduce GHG emissions 40 percent below 1990 levels by 2030. This EO also directs all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directs CARB to update its Climate Change Scoping Plan to address the 2030 goal. CARB is expected to develop statewide inventory projection data for 2030, as well as commence its efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the EO's new interim goal.

2.2.2.2 Assembly Bill 32—California Global Warming Solutions Act of 2006

In response to EO S-3-05, the California Legislature passed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009, indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

2.2.2.3 Senate Bill 32—California Global Warming Solutions Act of 2006

Approved in September 2016, Senate Bill (SB) 32 updates the California Global Warming Solutions Act of 2006. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

2.2.2.4 Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Original Scoping Plan). CARB has periodically revised GHG emissions forecasts and prepared supplemental revisions to the Original Scoping Plan. Most recently, in 2014, CARB adopted the comprehensive First Update to the Climate Change Scoping Plan: Building on the Framework (First Update to the Scoping Plan) (CARB 2014a). The First Update to the Scoping Plan ". . . highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050" (CARB 2014a). The First Update to the Scoping Plan found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and notes that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050, if the state realizes the expected benefits of existing policy goals (CARB 2014a).

In conjunction with the First Update to the Scoping Plan, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050" (CARB 2014a). Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction goal.

Based on CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050" (CARB 2014a). Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

In January 2017, CARB released *The 2017 Climate Change Scoping Plan Update, The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target* (Draft Scoping Plan; CARB 2017a). The comment period for the Draft Scoping Plan ended in March 2017. The Draft Scoping Plan identifies State strategy for achieving the State's 2030 interim GHG emissions reduction target codified by SB 32. The Draft Scoping Plan assessed three scenarios; (1) a Reference Scenario that represents current policies prior to the passage of SB 350 (i.e. October 2015); (2) a Proposed Scoping Plan Scenario (referred to as the "Draft Scoping Plan Scenario") that represents current policies, known commitments, as well as additional measures to reduce emissions from the refinery sector, and (3) an Alternative 1 Scenario that represents all policies and programs included in the Draft Scoping Plan Scenario, as well as additional prescriptive measures to meet the 2030 statewide reduction target without reliance on the Cap-and-Trade Program or a carbon tax.

Measures under the Draft Scoping Plan Scenario build-on existing programs such as Low Carbon Fuel Standard (LCFS), Advanced Clean Cars Program, Renewable Portfolio Standard (RPS), Sustainable Communities Strategy, and the Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally the Draft Scoping Plan proposes further strategies to reduce waste emissions through cogeneration, reduction of GHG emissions from the refinery sector by 20 percent, and new policies to address GHG emissions from natural and working lands. As discussed in the following section (Section 2.2.2.5), CARB continues adjust the cap of the Cap-and-Trade Program to achieve emission levels consistent with 2020 statewide GHG emissions reduction targets established by AB 32. Modeling for the Draft Scoping Plan Scenario does not reflect reductions achieved by the Cap-and-Trade Program.

As identified in the Alternative 1 Scenario, prescriptive measures necessary to achieve the State's 2030 interim GHG reduction target without reliance on the Cap-and-Trade Program include a 5 percent renewable pipeline gas standard, a 25 percent reduction in GHG emissions from the oil and gas extraction sector, a 25 percent reduction in the GHG emissions from the industrial sector, 20 percent flexible demand response from residential and commercial electric appliances, an additional 7 percent increase in LCFS (from 18 to 25 percent), an additional 10 percent reduction from the refining sector (from 20 to 30 percent), an additional 10 percent increase to California RPS (from 50 to 60 percent), increased building energy efficiency standards, and additional transportation demand measures. Table 6 summarizes the 2030 GHG emission forecasts for each scenario.

As shown in Table 6, statewide GHG emissions under the Draft Scoping Plan Scenario are approximately 304.8 MMT CO_2E and GHG emissions under the Alternative 1 Scenario that does not rely on the Cap-and-Trade Program to achieve the state's 2030 interim GHG reduction target are 258.6 MMT CO_2E. Thus, the Draft Scoping Plan relies on the Cap-and-Trade Program to achieve a 46.2 MMT CO_2E (15 percent) GHG emissions reduction.

Table 6
Draft Scoping Plan 2030 Forecast Scenarios
(MMT CO_2E)

Sector	Reference	Draft Scoping Plan	Alternative 1
Transportation	122.8	103.6	90.8
Electric Power	65.0	42.2	30.0
Industrial	87.9	77.2	65.6
Commercial and Residential	41.2	38.1	28.8
Agriculture	35.8	23.9	23.5
High GWP	28.9	10.7	10.7
Recycling and Waste	10.7	9.2	9.2
Total Emissions	**392.4**	**304.8**	**258.6**

Source: Draft Scoping Plan Modeling Information, Pathways Analysis (CARB 2017b)

2.2.2.5 Cap-and-Trade Program

The California Cap-and-Trade Program began in January 2013 and is authorized to continue until the end of 2020. The program is a market-based regulation that is designed

to reduce GHG emissions associated major sources by setting a firm cap on overall GHG emissions from covered entities and gradually reducing that cap over time. The program defines major sources as facilities that generate more than 25,000 MT CO_2E per year, which includes many electricity generators, refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants. Each entity covered by the program is allocated specific GHG emission allowances and is able to buy or sell additional offset credits to other major sources-covered entities. Thus, the program employs market mechanisms to cost effectively reduce overall GHG emissions. Throughout the program's duration, CARB continues to adjust the overall GHG emissions cap to achieve emission levels consistent with 2020 statewide GHG emission reduction targets established by AB 32.

2.2.2.5 Regional Emissions Targets – SB 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Original Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG emissions reduction targets and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan.

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a City's or County's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally-required metropolitan transportation planning process and the state-mandated housing element process.

2.2.2.6 California Building Standards Code (Title 24)

The California Code of Regulations (CCR), Title 24, is referred to as the California Building Code, or CBC. It consists of a compilation of several distinct standards and codes related to building construction including, plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility and so on. Of particular relevance to GHG emissions reductions are the CBC's energy efficiency and green building standards, as outlined below.

Part 6 - Energy Code

The CCR, Title 24, Part 6 is the Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major

renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC). By reducing California's energy consumption, emissions of statewide GHGs may also be reduced. The previous Energy Code, known as the 2013 Energy Code, became effective July 1, 2014.

The current version of the Energy Code, known as the 2016 Energy Code, became effective January 1, 2017. The 2013 Energy Code provides mandatory energy efficiency measures as well as voluntary tiers for increased energy efficiency. The CEC's preliminary estimates indicate that the 2016 Energy Code will achieve a 28 percent reduction in home energy use and a 5 percent reduction in non-residential energy use. The CEC has further indicated that the 2020 Energy Code will require new residential developments to achieve zero-net energy use.

Part 11 – California Green Building Standards Code

The California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2016 CalGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in Model Water Efficient Landscape Ordinance (MWELO) emergency standards
- 20 percent mandatory reduction in indoor water use relative to specified baseline levels;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring and particleboards.

Similar to the reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CalGreen water reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. The water use compliance forms must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate.

2.2.2.7 Other State Measures

Other regulations adopted by California are summarized below.

- Advanced Clean Cars Program (i.e., Pavley I and Low Emission Vehicle III) – A set of vehicle standards that require light-duty cars and trucks to have reduced GHG emissions.
- Low Carbon Fuel Standard – A statewide goal requiring a 10 percent reduction in the carbon intensity of transportation fuels by 2020.
- Renewables Portfolio Standard (RPS) – Requires electrical providers achieve an energy mix of 33 percent renewable energy by 2020 and 50 percent renewable energy by 2050.
- AB 341, Solid Waste Diversion – The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of measures in order to reuse, recycle, compost, or otherwise divert solid waste from disposal. Additionally, AB 341 mandates that 75 percent of all solid waste generated in the state be reduced, recycled, or composted by 2020 regardless of the source.

2.2.3 Local

2.2.3.1 San Diego Unified Port District Climate Action Plan

In December 2013 the Board of Port Commissioners approved a Climate Action Plan (CAP) to reduce local GHG emissions. The CAP includes a variety of potential GHG reduction policies and measures selected to help meet the District's GHG reduction goals of 10 percent less than 2006 levels by 2020 and 25 percent less than 2006 levels by 2035. Reducing GHG emissions can slow the rate of climate change – thus reducing impacts. The District's reduction measures include those required by state and federal regulations, and District-specific policies and measures focused on the following:

- Transportation Land Use Planning: Support alternative-fueled technology and implement management systems that increase the efficiency of transportation and reduce energy consumption.
- Energy Conservation and Efficiency: Employ energy strategies in buildings and exterior spaces that save money on utility costs, reduce GHG emissions and provide other community benefits.
- Water Conservation and Recycling: Conserve, treat and re-use water to minimize GHG emissions and conserve a scarce resource.
- Alternative Energy Generation: Meet energy demands through renewable energy generation.
- Waste Reduction and Recycling: Promote behavioral changes that encourage conserving resources, reuse and recycling.
- Miscellaneous: Support other programs and outreach to reduce GHG emissions.

3.0 Significance Criteria

3.1 State CEQA Guidelines

The California Environmental Quality Act (CEQA) Guidelines, Appendix G Environmental Checklist, includes the following two questions regarding assessment of GHG emissions:

1) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?

Global climate change is a result of GHG emissions generated globally over many decades by a vast number of difference sources worldwide. The GHG emissions of individual projects do not generate sufficient GHG emissions to have a substantial effect on global climate change (SCAQMD 2008; SJVAPCD 2009). However, continued development may contribute to the cumulative global accumulation of GHG emissions that could result in adverse effects on the current climate. In the context of CEQA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). While, the geographic extent of the cumulative contributions to GHGs and climate change is worldwide, relating the contribution of a single project to cumulative global emissions marginalizes project impacts. This makes it difficult to assess the significance of a single project.

The CEQA Guidelines encourage Lead Agencies to adopt thresholds of significance. When adopting these thresholds, the amended Guidelines allow Lead Agencies to develop their own significance thresholds and/or to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence.

3.2 District Significance Thresholds

The District has not adopted a threshold of significance for GHG emissions for general use as part of its environmental review process. Case-by-case review of each project is necessary to determine which thresholds best assess potential impacts based on the nature of the project.

3.3 2020 Significance Criteria

The District's CAP includes a variety of potential GHG reduction policies and measures selected to help meet the District's GHG reduction goals of 10 percent less than 2006 levels by 2020 and 25 percent less than 2006 levels by 2035. The CAP presents specific projections and GHG reduction targets broken down by each activity and tenant type; where activities include electricity demand, natural gas use, on-road transportation, off-road transportation,

water use, and waste disposal, and; tenant type categories include industrial, shipbuilding, lodging, ocean-going vessels, recreational boating, other terminal activity, port operations, and other tenant types. Table 7 summarizes the District's business-as-usual (BAU) forecast that accounts for regulations in place at the time of the CAP baseline year (2006), the adjusted BAU forecast that accounts for the effects of federal and state actions, and target emissions levels with adoption of the CAP.

Table 7
GHG Emissions Forecasts and Targets by Tenant Type
(MT CO_2E per Year)

Category	Tenant Type	2006 Emissions	2020 Forecasted Emissions Levels			Reduction (BAU v. CAP)
			BAU	ABAU	CAP	
Port	Port Operations	37,164	38,930	30,044	33,533	14%
Maritime Operations	Ocean-Going Vessels	55,162	72,786	62,365	49,773	32%
	Recreational Boating	80,441	118,252	106,391	72,583	39%
	Other Terminal Activity	89,242	109,859	92,000	80,524	27%
Other Tenants	Industrial	137,426	138,258	131,725	124,001	10%
	Shipbuilding	123,725	123,545	90,187	111,638	10%
	Lodging	137,429	249,852	197,750	124,004	50%
	Other	**165,840**	**188,217**	**145,025**	**149,639**	**20%**
Totals		826,429	1,039,700	855,489	745,695	28%

BAU = business-as-usual; ABAU = adjusted business as usual; CAP = Climate Action Plan.

The CAP attributes a 20 percent reduction from the BAU scenario to the 'other' land use category; however, the 'other' land use category is a generic category that may encompass a variety of land uses. Due to the generic nature of the 'other' land use category, individual development projects within the 'other' land use category may reasonably be expected to demonstrate either a higher or lower emissions depending on the nature of the project. To better inform the analysis of project conformity, the underlying assumptions of the CAP were reviewed further. With the participation of District staff and the CAP consultant, Ramboll Environ, Inc. (formerly Environ, Inc.), CAP emission reduction targets were determined for more specific tenant types within the 'other' land use category. Specific tenant types were identified for both existing land uses and projects that were considered foreseeable at the time the CAP was prepared. Table 8 summarizes the reductions specific to each tenant type that are accounted for in the CAP.

Table 8 CAP Emission Reductions by Tenant Type	
Tenant Subtype	GHG Reduction (%)
Existing Land Uses	
Office	26
Warehouse/Storage	12
Museum	15
Rental Car	4
Sport fishing	14
Commercial Sport fishing	15
Petroleum	15
Golf Courses	12
Recreational Vehicle (RV) Parks	13
Boatyards	11
Industrial	1
Port	12
Shipbuilding	6
Land Transportation	3
Ocean Going Vessels	7
Recreational Boating	0.1
Other Terminal Activity	5
Total Reduction	8
Future Port Development*	
Classrooms	22
Convention Center	21
Events	**22**
Fire Station (Chula Vista)	21
Lodging	21
Marinas	44
Open Space	**23**
Restaurant	20
Retail	22
Yacht Club	19
Total Reduction	21
* Future port development refers to all reasonably foreseeable projects at the time the CAP was prepared.	

Where projects are considered part of the 'other' land use category, assessment of project conformity with the CAP may reasonably be demonstrated based on the GHG emissions reduction targets for the most similar tenant subtype.

The District's GHG emission reduction goals are a 10 percent reduction from 2006 emission levels by 2020 and a 25 percent reduction from 2006 levels by 2035. These GHG emission reduction goals are guided by state regulations including the 2020 state reduction goal codified by AB 32 and the 2050 emissions reduction goal established by EO S-3-05. Detailed conformity analysis for projects that exceed the CAPCOA threshold may include assessment of project emissions reductions compared to emissions reductions assumed by the CAP. For example based on Table 8, if a project that proposes recreational boating facility would achieve a 39 percent reduction as compared to the BAU scenario, the project would not impede achievement of the District's reduction goals. As these goals are guided

by state goals, the project would also not impede achievement of state reduction goal, and impacts of project emissions would be less than cumulatively considerable.

Of the future port development subtypes assessed in the CAP (see Table 8), the project proposes a land use that may be considered most similar to either the future port development tenant subtype events or the future port development tenant subtype open space (parks are considered open space). Specific CAP GHG emission reduction targets for the tenant subtypes are a 22 percent reduction for events and a 23 percent reduction for open space. This analysis assesses project consistency with the 23 percent reduction from the BAU scenario for open space tenant subtypes.

3.4 Post-2020 Significance Criteria

The District CAP projections and associated tenant-specific GHG emissions reduction targets do not extend past 2020. In the absence of specific 2030 GHG emissions reduction targets, this analysis considers the District GHG emission reduction targets in 2020 and the additional land use-driven reductions required at the state level to determine a performance standard of the fair share of reductions needed to demonstrate progress in the post-2020 time period. The methodology used to equate the District's 2020 GHG emission reduction target for open space to a 2030 GHG emission reduction target is based on tenant-specific GHG emissions reduction targets that parallel state land use-driven GHG reduction targets. Future updates to the District CAP may allot increased or decreased GHG emissions reduction targets to individual tenant types. Nonetheless, consistency with the performance standard based on the state land use-driven reductions demonstrates a good faith effort to achieve a downward trajectory toward post-2020 statewide GHG emissions reduction targets. For purposes of clarity, all evaluations in this analysis use the same BAU baseline (2006 environment) for determining significance.

This District 2020 GHG emissions reduction target was modified to reflect additional land use-driven reductions necessary to support the 2030 Draft Scoping Plan Scenario as identified in the CARB Pathways Analysis (CARB 2017b; see Section 2.2.2.4). This methodology is based on the land use-driven "gap-based" approach used by air districts across the state, including the Bay Area Air Quality Management District (BAAQMD), South Coast Air Quality Management District (SCAQMD), San Luis Obispo County Air Pollution Control District (SLOAPCD), as well as many others. Based on the guidance issued by these agencies, emissions attributable to land use-driven sectors include transportation, electric power, commercial and residential (fuel use), and recycling and waste. Other emission sectors such as agriculture and high GWP were not considered land use-driven, as they do not correlate strongly with the number of new development projects in the state. Industrial stationary sources may be associated with certain land use development projects. However, industrial stationary sources are subject to separate regulation through the local air district, and emissions are captured within the Cap-and-Trade Program. Industrial emissions are more strongly influenced by state regulations on specific industries than by local land use decisions. Thus, the industrial sector was not considered to be land use-driven.

Table 9 summarizes the GHG emissions from all sectors and land use-driven sectors in the statewide 2020 BAU Forecast and emissions from land use-driven sectors in the 2030 Draft Scoping Plan Scenario.

Table 9
State Scoping Plan Land Use-Driven Reductions

	All Sectors		Land Use-Driven Sectors		
Sector	2020 BAU Scenario[1]	2030 Draft Scoping Plan Scenario[2,3]	2020 BAU Scenario	2030 Draft Scoping Plan Scenario	Reduction
Transportation	185.3	103.6	185.3	103.6	44%
Electric Power	103.8	42.2	103.8	42.2	59%
Industrial	93.7	77.25	-	-	-
Commercial and Residential[3]	49.5	38.1	49.5	38.1	23%
Agriculture	36.2	23.9	-	-	-
High GWP	31.5	10.7	-	-	-
Recycling and Waste	9.4	9.2	9.4	9.2	2%
Total Emissions	509.4	304.8	348.0	193.1	45%

[1] Source: First Update to the Scoping Plan, Mid Case Forecast (CARB 2014b)
[2] Source: Draft Scoping Plan Modeling Information, Pathways Analysis (CARB 2017b)
[3] The Draft Scoping Plan Modeling Information does not disclose a breakdown of commercial and residential fuel use.

As summarized in Table 9, the difference between emissions from land use-driven sectors in the statewide 2020 BAU Scenario and emissions from land use-driven sectors in the 2030 Draft Scoping Plan Scenario is approximately 45 percent. Thus, based on the analysis of the Draft 2017 Scoping Plan, an additional 45 percent reduction from District 2020 GHG emissions reduction targets would demonstrate consistency with the 2030 Draft Scoping Plan Scenario. As discussed in Section 3.3, District GHG emissions reduction targets in 2020 are 23 percent reduction from the BAU scenario. The additional 45 percent reduction from 2020 GHG emissions reduction targets corresponds to a total 57 percent reduction from the BAU scenario by 2030.[1]

Statewide GHG emission reduction targets identified by B-30-15 and codified by SB 32 are a 40 percent reduction from 2020 emission levels by 2030; this target emission level equates to 258.6 MMT CO_2E. As discussed in Section 2.2.2.4, statewide GHG emissions under the 2030 Draft Scoping Plan Scenario are approximately 304.8 MMT CO_2E. The Draft Scoping Plan relies on the Cap-and-Trade Program to achieve the remaining 46.2 MMT CO_2E (15 percent) GHG emissions reduction. The existing authorization for the Cap-and-Trade Program does not extend beyond 2020. As the Cap-and-Trade Program is not authorized beyond 2030, potential GHG emission reductions are speculative. Due to the uncertainty associated with the Cap-and-Trade Program, the Draft Scoping Plan assessed an Alternative 1 Scenario that represents potential prescriptive measures necessary to achieve the state's 2030 interim GHG reduction target without reliance on the Cap-and-Trade

[1] 100% – ([100% - 23%] x [100% - 45%]) ≈ 57%

Program. This District 2030 GHG emissions reduction target was modified to reflect reductions from the 2030 Draft Scoping Plan Scenario necessary to support the state's 2030 interim GHG reduction without reliance the Cap-and-Trade Program.

Table 10 summarizes calculation of the District's 2030 GHG emission reduction target for open space land uses based on the 2030 Draft Scoping Plan Scenario and the state's 2030 interim GHG reduction.

Table 10
District 2030 GHG Emissions Reduction Target Derivation

Metric	Quantity
2020 District GHG Emissions Reduction Target	23%
Statewide 2020 BAU Scenario	
All Emission Sectors	509.4
Land Use-Driven Sectors	348.0
2030 Draft Scoping Plan Scenario	
All Emission Sectors	304.8
Land Use-Driven Sectors	193.1
Reduction between statewide 2020 BAU Scenario and 2030 Draft Scoping Plan Scenario	
All Emission Sectors	40%
Land Use-Driven Sectors	45%
2030 Draft Scoping Plan Scenario	304.8
2030 Statewide GHG Emissions Reduction Target	258.6
Gap between 2030 Draft Scoping Plan Scenario and 2030 Statewide GHG Emissions Reduction Target	15%
District 2030 GHG Emissions Reduction Target	**64%**

As shown in Table 10, the gap between the 2030 Draft Scoping Plan Scenario and the 2030 statewide reduction target is approximately 15 percent. Thus, an additional 15 percent reduction from emission levels that would be consistent with the 2030 Draft Scoping Plan Scenario is necessary to demonstrate consistency with the 2030 statewide reduction target. As discussed in Section 3.3, District GHG emissions reduction targets in 2020 are 23 percent reduction from the BAU scenario. The additional 45 percent reduction between 2020 and 2030 scenarios and the additional 15 percent reduction to remove reliance on Cap-and-Trade Program correspond to a total 64 percent reduction from the BAU scenario.

This analysis considers 64 percent reduction from the BAU scenario to be an appropriate threshold for determining consistency with the 2030 statewide reduction target. If emissions associated with an open space land use development project are consistent with the performance standard, then the impact of the project's cumulative contribution of GHG emissions would be considered less than significant. If emissions are not consistent with the performance standard, then the impact of the project's cumulative contribution of GHG emissions would be considered significant.

4.0 Emissions Modeling

4.1 Methodology and Assumptions

GHG emissions associated with the existing use and the project were calculated using CalEEMod 2016.3.1 (CAPCOA 2016). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. The project performance stage and building shell were modeled as a 19,850-square-foot arena use; the parking lot was modeled as a 1.8-acre parking lot; synthetic turf seating area, permeable pavers, decomposed granite area, and walkways were modeled as a 2.54-acre other non-asphalt surfaces; and remaining natural lawn areas were modeled as a 2.22-acre park use. The model estimates mass emissions from two basics sources: construction sources and operational sources. CalEEMod can be used to calculate emissions from construction (off-road vehicles), mobile (on-road vehicles), area (fireplaces, consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of total MT CO_2E.

Bayside Performance Park programming initially includes 82 events that would result in an estimated annual attendance of approximately 294,500 attendees in 2019 and 2020 (3,591 attendees per event). However, both the number of events and the number of attendees per event would be anticipated to increase through 2030. Programming estimates that the venue would grow to accommodate up to 116 events at full buildout in 2031 and thereby accommodate annual buildout attendance of approximately 506,232 attendees (4,364 attendees per event). As project-related activities such as vehicle miles traveled (VMT), electricity demand, water use, etc. would increase with annual attendance, the presumption that emission levels would be highest during the first year of operation is not supported. To address anticipated growth, this analysis considers the emissions that would occur upon the following:

(1) maximum buildout of the project is achieved by 2020;
(2) anticipated buildout is achieved by 2020; and
(3) maximum/anticipated buildout of the project is achieved by 2030.

Additionally, both 2020 and 2030 emissions scenarios were modeled under the BAU scenario to assess consistency with CAP GHG emissions reduction targets.

The analysis methodology and input data are described in the following sections. Where project-specific data were not available, model inputs were based on information provided in the CalEEMod User's Guide (CAPCOA 2016).

4.1.1 Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and

gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control.

Every phase of the construction process emits GHGs in volumes directly related to the quantity and type of construction equipment used, the number of workers, and the materials hauled. GHG emissions associated with construction equipment use are calculated by multiplying the total fuel consumed by the construction equipment and worker trips by applicable emission factors. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

Under existing conditions, the temporary venue is set up in June and is taken down each December. Setup and takedown of the temporary venue lasts approximately 6 weeks and involves up to 75 workers per day. Equipment use includes aerial lifts (fork lift or boom lift), golf carts, and trucks. The existing condition was modeled assuming 150 worker commute trips per day (two trips per worker), 100 vendor trips per day (materials hauling), and use of three aerial lifts over a 6-week period.

Two project construction logistics schedules have been developed. Following the primary construction logistics schedule, construction would occur in a single phase, begin in October 2017 and last for approximately 8 months and would be followed by a 1- to 2-month commissioning and site testing phase. Following the secondary construction logistics schedule, construction would be done in four phases, with each phase confined to a subarea within the project site. The secondary logistics schedule would take 16 months; however it would not include more construction equipment use than the primary logistics schedule. This analysis conservatively assumes the primary construction logistics schedule. Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters provided by the client are summarized in Table 11 and 12 below.

Table 11
Construction Schedule

Construction Type	Construction (days)	Duration (months)	Number of Personnel	Hauling (round trips)
Demolition	10	0.5	-	6 to 8
Grading	45	2	3 to 15	7
Structural and Site Work	110	5	Up to 75	25
Paving	10	0.5	4 to 8	-
Total	175 days	8 months	-	

Table 12 Heavy Construction Equipment	
Equipment	Number Required
Bulldozer	1
Push Pull Scraper	4
Grader	1
Water Truck	2
Skid Steer (Bobcat)	2
Skip Loader	2
Dump Truck	1
Drill Rig	1
Crane	1
Concrete Pump	2

Project-specific construction equipment was used to model demolition, grading, and construction activities. However, project-specific estimates of construction equipment needed for paving have not been developed. CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The estimates are based on surveys, performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District, of typical construction projects that provide a basis for scaling equipment needs and schedule with a project's size. Standard assumptions for paving activities were used. There are no regulations that affect the type of construction equipment or number of pieces of construction equipment required by the project. Thus, the same assumptions were used to model construction-related emissions under the project and BAU scenario.

Demolition would require removal of areas of hardscaping, ground cover, and several existing amenities such as fitness equipment and basketball courts. Demolition hauling trips were modeled assuming up to 6 inches of concrete, asphalt, or natural lawn to be removed across the entire construction site, which would result in approximately 8,000 cubic feet of debris. This estimation is conservative, as the actual amount would be less as only the materials from demolished hardscape and structures would be exported. Site grading would involve movement of soil on-site; cut and fill would be balanced, thus no soil would be imported or exported. Consistent with industry standard and previous GHG analysis by the District, project construction is amortized over the life of the project and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project. Although the project Real Estate Agreement would have a maximum term of up to 66 years, the useful life of the project was conservatively assumed to be 30 years.

4.1.2 Mobile Emissions

Mobile emission are estimated in CalEEMod by first calculating trip rate, trip length, trip purpose (e.g., home to work, home to shop, home to other), and trip type percentages for each land use type, based on the land use types and quantities. Vehicle trip generation rates for the existing use and project, and trip distances were obtained from the Traffic

Impact Analysis prepared for the project (Chen Ryan 2017). Based on surveys of the transportation mode choice of existing Symphony patrons, the existing use and project would generate approximately 0.63 vehicle trip per attendee. As indicated in the project Traffic Impact Analysis, the existing use accommodated 34 events with approximately 96,280 total attendees in 2016. Project events are anticipated to accommodate 82 events (66 symphony events, 16 non-symphony events) with 294,500 total attendees in 2020 and 116 events (100 symphony events, 16 non-symphony events) with 506,232 total attendees at full buildout in 2031. Rehearsals associated with Bayside Summer Nights performances at the existing temporary venue are limited to the day of the event. Project rehearsals would be limited to one rehearsal on the day of the event, and 1.5 non-event day rehearsals per event (based on the number of annual events) per the conditions of a District-issued Real Estate Agreement for the Bayside Performance Park. Each rehearsal would involve attendance of between 25 and 100 employees. For a worst-case scenario this analysis assumes all rehearsals would involve attendance of 100 employees. Therefore, rehearsals associated with each event may result in additional attendance of 150 employees on non-event days. Rehearsals on the day of the event are not anticipated to result in additional vehicle trips.

Existing use generated approximately 60,868 trips in 2016, and the project would generate approximately 193,957 trips in 2020 and 331,036 trips in 2030. Although the average trip length in San Diego County is 5.8 miles, Symphony patrons often travel greater distances to attend (SANDAG 2014). Based on a survey of Symphony patrons, an average trip distance of 21.44 miles was modeled. The same assumptions were used to model trip generation under the project and BAU scenario.

The existing use was modeled with standard 2016 vehicle emission factors and fleet mix in CalEEMod, which were derived from CARB's Emission Factors 2014 model and account for the effects of applicable regulations such as the Advanced Clean Cars Program. Project emissions estimates were also developed using the standard 2020 and 2030 vehicle emission factors and fleet mix in CalEEMod, which were derived from CARB's Emission Factors 2014 model and account for the effects of applicable regulations such as the Advanced Clean Cars Program. The BAU scenario was modeled with alternative vehicle emission factors that discount the GHG reducing effects from the implementation of the Advanced Clean Car Program.

The project would install one electric vehicle charging station that services two "park visitor only" parking stalls located on the eastern portion of the parking lot. Project emission estimates to not take credit for reductions achieved by this project feature.

4.1.3 Energy Use Emissions

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's operation. Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions. Combustion of fossil fuel emits criteria pollutants and GHGs directly into the

atmosphere. When this occurs in a building, this is considered a direct emissions source associated with that building. CalEEMod estimates emissions from the direct combustion of natural gas for space and water heating.

Based on energy usage data from May 2014 through May 2016, an estimated annual average of 57,344 kilowatt-hours (kWh) are used for the Bayside Summer Nights series including the Symphony concerts and event rentals held during the season. Specifically, the 2016 Bayside Summer Nights season used approximately 52,974 kWh, which is slightly less than the previously noted annual average. Energy use associated with the existing use was modeled based on the existing annual average, 57,344 kWh.

The energy use associated with full buildout of the project was estimated by the project architect to be approximately 1,618 kWh and 2,151 British thermal units (BTU) per event, including associated rehearsals. Thus, project energy use would be 132,678 kWh and 176,405 BTU in 2020 and 187,691 kWh and 249,549 BTU in 2030. As compared to energy use rates for new arenas, historic energy use rates for arenas have approximately 11 higher electricity demand and 9 percent higher natural gas use (CAPCOA 2016). The modeled energy use under the BAU condition was modified to reflect this change; thus, maximal buildouts under the 2020 BAU scenario and the 2030 BAU scenario were modeled with an energy use of 210,902 kWh and 274,503 BTU and the anticipated project buildout under the 2020 BAU scenario was modeled with an energy use of 149,086 kWh and 194,046 BTU.

Electricity demand was multiplied by electricity GHG emission factors applicable to the project location and utility provider. The project would be served by San Diego Gas & Electric (SDG&E). Therefore, SDG&E's specific energy intensity factors (i.e., the amount of CO_2, CH_4, and N_2O per kilowatt-hour) are used in the calculations of GHG emissions.

Energy intensity factors for SDG&E were published for years 2004 to 2009. The energy-intensity factors included in CalEEMod by default reflect SDG&E's emissions rate in 2009. The original California RPS was established in 2002 under SB 1078; it established a target of 20 percent renewable energy procurement by 2017. In 2006, targets were accelerated to 20 percent renewable energy procurement by 2020 under SB 107. In 2011, targets were extended to 33 percent renewable energy procurement by 2020 under SB X1-2. In 2015, RPS targets were extended to 50 percent renewable energy procurement by 2030 under SB 350.

The 2020 BAU estimate reflects regulations adopted prior to 2006. Original RPS targets included the same renewable energy procurement target as accelerated RPS targets for 2010. Therefore, BAU estimates use 2005 energy intensity factors. In 2009 SDG&E achieved 10.2 percent procurement of renewable energy; however, the state mandate for renewable energy is 33 percent by 2020. The California Public Utilities Commission (CPUC) has indicated that SDG&E met and exceeded 2020 RPS targets by achieving a 35.2 percent in 2015 (CPUC 2017). Therefore the existing use and 2020 project emission estimates were modeled accounting for reductions achieved by 35.2 percent renewable energy procurement. The 2030 project emissions estimates were modeled with energy intensity factors used for project estimates were adjusted to account for continuing effects of RPS through 2030. SDG&E energy intensity factors are shown in Table 13.

Table 13 San Diego Gas & Electric Energy Intensity Factors				
Gas	2005 Factors (lbs/MWh)	2016 Factors (lbs/MWh)	2020 Factors (lbs/MWh)	2030 Factors (lbs/MWh)
Carbon Dioxide (CO_2)	780.79	519.91	519.91	401.16
Methane (CH_4)	0.029	0.021	0.021	0.016
Nitrous Oxide (N_2O)	0.011	0.004	0.004	0.003
SOURCE: SDG&E 2011; CPUC 2017. lbs = pounds; mWh = megawatt hour				

Emissions resulting from natural gas consumption were calculated in CalEEMod by multiplying natural gas consumption by standard emission factors published by the U.S. EPA's *AP-42: Compilation of Air Emissions Factors*.

4.1.4 Area Source Emissions

Area sources can include GHG emissions occurring from the use of fireplaces and landscaping equipment, as well as from the use of consumer products. The use of fireplaces directly emits CO_2 from the combustion of natural gas, wood, or biomass, some of which are classified as biogenic. However, the project would not include woodstoves or fireplaces.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Consumer product emission factors used in CalEEMod are based on statewide emissions data.

The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The use of landscape equipment would remain relatively constant and would not increase with the number or events or the number of attendees. The landscaping equipment emission values were derived from the 2011 In-Use Off-Road Equipment Inventory Model (CARB 2011).

4.1.5 Water and Wastewater Emissions

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH_4 and N_2O.

The existing use does not result in indoor water use. The project's indoor water use was estimated by the project architect to be approximately 9,955 gallons per event, including associated rehearsals. Thus, project annual indoor water use would be 816,315 gallons in 2020 and 1,154,787 gallons in 2030. These indoor water use estimates reflect compliance with CalGreen requirements that typically result in a 20 percent reduction in the overall indoor water use. The modeled indoor water use associated with maximal buildout under

the 2020 BAU scenario was modeled with an indoor water use of 1,443,483 gallons per year, and the anticipated buildout under the 2020 BAU scenario was modeled with an indoor water use of 1,020,393 gallons per year. Wastewater generation was based on a total indoor water use (CAPCOA 2016).

Outdoor water use associated with lawn areas was estimated using data from the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* 2003 (as cited in CAPCOA 2016). Existing outdoor water use and project outdoor water use were based on the lawn area before and after the project, respectively. Outdoor water use would remain relatively constant and would not increase with the number or events or the number of attendees.

The GHG emissions from the energy used to transport the water are affected by RPS. As discussed previously, energy intensity factors were adjusted to account for continuing effects of RPS through 2020 and 2030.

4.1.6 Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. The existing use generated 50.13 tons of solid waste in 2016. Based on the existing venue's solid waste disposal billing for 2011 through 2016, the project's waste generation was estimated by the project architect to be approximately 0.76 ton of waste per event, including associated rehearsals. These waste generation estimates reflect compliance with AB 341, Commercial Recycling Requirements, which mandate that businesses (including public entities) that generate greater than 4 cubic yards of solid waste per week, institute certain waste diversion practices. Based on AB 341 goals, the existing solid waste diversion rate of 50 percent will increase to 75 percent by 2020.

The modeled waste generation associated with the project was reduced 25 percent to account for continued reductions attributable to AB 341. Thus, project waste generation would be 46.5 tons in 2020 and 65.7 tons in 2030. The modeled waste generation associated with the anticipated buildout under the 2020 BAU scenario was increased 50 percent to reflect the to-date effects of AB 341. Thus, project waste generation under the BAU scenario would be project waste generation would be 123.9 tons in 2020 and 175.2 tons in 2030.

The methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters.

4.2 Emissions Modeling Summary

Table 14 provides a summary of the calculation methodology for each emission source calculated.

Table 14 Methodology Summary				
Source	Existing Use (2016)	Project Estimate (2020)	Project Estimate (2030)	BAU Estimates
Construction	Emissions associated with setup and takedown of the temporary venue were calculated based on related equipment use and worker trips in 2016. Emissions were not amortized.	Construction emissions were calculated based on anticipated construction equipment and phasing. Results were amortized over 30 years and added to operational emissions.	Same as 2020 project estimate.	Same as 2020 project estimate.
Vehicles	Vehicle trip generation was calculated based on estimated annual attendance in 2016 and rates obtained from the Traffic Impact Analysis prepared for the project. Trip distances were obtained from the Traffic Impact Analysis prepared for the project. Vehicle emissions factors for 2016 were used; these factors account for the effects of the Advanced Clean Cars Program.	Vehicle trip generation was calculated based on projected annual attendance in 2020 and rates obtained from the Traffic Impact Analysis prepared for the project. Trip distances were obtained from the Traffic Impact Analysis prepared for the project. Vehicle emissions factors for 2020 were used; these factors account for the effects of the Advanced Clean Cars Program.	Vehicle trip generation was calculated based on projected annual attendance in 2030 and rates obtained from the Traffic Impact Analysis prepared for the project. Trip distances were obtained from the Traffic Impact Analysis prepared for the project. Vehicle emissions factors for 2030 were used; these factors account for the effects of the Advanced Clean Cars Program.	Vehicle trip generation was calculated based on projected annual attendance and rates obtained from the Traffic Impact Analysis prepared for the project. Alternate emission factors were used; these factors discount the effects of the Advanced Clean Cars Program.
Energy	Existing energy use was based on 2016 utility billing. Electricity-related emissions account for the difference between the SDG&E's renewable mix in 2009 and current renewable mix of 35.2 percent.	Project energy use was identified by the project architect. Electricity-related emissions account for the difference between the SDG&E's renewable mix in 2009 and current renewable mix of 35.2 percent.	Project energy use was identified by the project architect. Electricity-related emissions account for the difference between the SDG&E's renewable mix in 2009 and the target renewable mix of 50 percent in 2030.	Project energy use identified by the project architect was modified to remove the effects of Title 24 requirements implemented subsequent to 2005. Electricity-related emissions reflect conditions in 2005.
Area	Landscaping equipment use and emission factors were derived from the 2011 In-Use Off-Road Equipment Inventory Model.	Same as existing use estimate.	Same as existing use estimate.	Same as existing use estimate.

Table 14 Methodology Summary				
Source	Existing Use (2016)	Project Estimate (2020)	Project Estimate (2030)	BAU Estimates
Water	The existing use does not include indoor water use. Project outdoor water use was based on the size of the existing lawn area. Energy intensity factors discussed above were used.	Project indoor water use was identified by the project architect. Project outdoor water use was based on the size of the existing lawn area. Energy intensity factors discussed above were used.	Project indoor water use was identified by the project architect. Project outdoor water use was based on the size of the existing lawn area. Energy intensity factors discussed above were used.	Project indoor water use identified by the project architect was modified to remove the effects of CalGreen requirements Project outdoor water use was based on the size of the existing lawn area. Energy intensity factors discussed above were used.
Solid Waste	Existing waste generation was based on 2016 disposal billing.	Project waste generation was identified by the project architect.	Project waste generation was identified by the project architect.	Project waste generation identified by the project architect was modified to remove the effects of AB 341.

5.0 GHG Impact Analysis

In accordance with California Environmental Quality Act (CEQA) and City guidance, this analysis evaluates the significance of the project in terms of (1) its contribution of GHGs to cumulative statewide emissions and (2) its consistency with local and state regulations, plans, and policies aimed at reducing GHG emissions.

Based on the methodology summarized in Section 4.1, Methodology and Assumptions, the primary sources of direct and indirect GHG emissions in 2020 have been calculated. Table 15 summarizes the anticipated project emissions in 2020. The complete model outputs for the project are included in Attachment 1.

Table 15
Project GHG Emissions
(MT CO_2E per Year)

Emission Source	Existing (2016)	Maximum Buildout (2020)	Anticipated Buildout (2020)	Anticipated Buildout (2030)
Vehicles	586	2,851	1,672	1,705
Energy Use	30	74	57	60
Area Sources	>1	>1	>1	>1
Water Use	20	12	11	10
Solid Waste Disposal	25	33	23	33
Construction	71	29	29	29
TOTAL	**733**	**3,000**	**1,792**	**1,838**

As shown, anticipated project GHG emissions in 2020 would be approximately 1,792 MT CO_2E, which represents an approximate increase of 1,059 MT CO_2E as compared to the existing condition. Maximum buildout of the project by 2020 would generate 2,267 MT CO_2E greater than the existing condition and maximum buildout of the project in 2030 would generate 1,105 MT CO_2E greater than the existing condition. The impacts of project emissions with respect to local and state reduction goals are discussed in Section 5.1.

5.1 GHG Emissions

5.1.1 Project Emissions through 2020

As discussed in Section 3.3, the CAP GHG emissions reduction target for the 'general other' land use category is 20 percent. Of the future port development subtypes assessed in the CAP (see Table 8), the project proposes a land use that may be considered most similar to either the future port development tenant subtypes events or the future port development tenant subtype open space (parks are considered open space). Specific CAP GHG emissions reduction target for the tenant open space subtypes is 23 percent. This analysis assesses project consistency with the 23 percent reduction from the BAU scenario for open space tenant subtypes.

Based on the methodology summarized in Section 4.1, Methodology and Assumptions, an estimate of the project's maximum and anticipated 2020 buildout emissions under the BAU scenario has been prepared. Tables 16 and 17 compare the 2020 emissions associated with maximum and anticipated buildout under the BAU scenario. The complete model outputs for the project are included in Attachment 1.

Table 16
Maximum 2020 GHG Emissions
(MT CO_2E per Year)

Emission Source	BAU Emissions	Project	Reduction from BAU	
			MT CO_2E	Percent
Vehicles	3,378	2,851	527	16%
Energy Use	114	74	40	35%
Area Sources	>1	>1	>1	-
Water Use	19	12	7	37%
Solid Waste Disposal	88	33	55	63%
Construction	29	29	0	-
TOTAL	**3,629**	**3,000**	**629**	**17%**

Table 17
Anticipated 2020 GHG Emissions
(MT CO_2E per Year)

Emission Source	BAU Emissions	Project	Reduction from BAU	
			MT CO_2E	Percent
Vehicles	1,981	1,672	309	16%
Energy Use	88	57	31	35%
Area Sources	>1	>1	>1	-
Water Use	17	11	6	36%
Solid Waste Disposal	62	23	39	62%
Construction	29	29	0	-
TOTAL	**2,177**	**1,792**	**385**	**18%**

As shown in Tables 16 and 17, maximum and anticipated buildout would achieve an approximate 17 to 18 percent reduction as compared to the BAU scenario. As project emissions would predominately be from mobile sources, the reductions shown are largely driven by state vehicle emissions regulations such as the Advanced Clean Cars Program. Reductions in other source categories are attributable to other regulatory programs such as California RPS 2020 requirements, CalGreen, and AB 341.

Based on this analysis, the project would not achieve GHG emissions reductions that are consistent with the CAP target. As the project would not achieve GHG emissions reduction targets identified in the CAP, the impact of project GHG emissions in 2020 would be significant.

5.1.1.1 Mitigation

Project emissions are predominately driven by mobile sources. Mitigation measure GHG-1 would encourage attendee use of mass transit and thereby reduce use of single-occupancy vehicles. Thus, mitigation measure GHG-1 would reduce project mobile source emissions. The following mitigation measures are designed to reduce potentially significant impacts:

GHG-1: Subsidized Mass Transit

Requirements on Applicant

The Applicant shall provide subsidies for local mass transit. Prior to ticket sale for any event or set of events, the Applicant shall submit a Transit Subsidy Plan to the District that outlines procedures to provide transit rebates for event attendees and event employees, including but not limited to musicians, support staff, and volunteers, that arrive via transit providers with which the Applicant has not entered into an agreement. Attendees may be required to present a proof of transit ridership (i.e., transit receipt, ticket, or stub) to receive the transit rebate. The amount of available transit rebate available to each attendee shall be $5.00.

Alternatively, the Applicant may enter into an agreement with one or more of the following transit providers to provide transit at reduced or no fee to the event attendees and event employees, including but not limited to musicians, support staff, and volunteers: local bus lines (local bus lines operated by San Diego Metropolitan Transit System (SDMTS), the ferry (Fifth Avenue Ferry Landing operated by Flagship Cruises and Events), the trolley (Gaslamp Quarter Station is operated by SDMTS), and the COASTER commuter train (COASTER is operated by North County Transit District). Transit subsidies need not be separate vouchers and may be associated with event tickets.

The Applicant shall disclose the available subsidy to the attendee at the time of ticket purchase and shall inform attendees of the availability of the subsidy through pedestrian traffic management measures such as signs, cordons, announcements, and other measures at each event. The amount of available transit subsidy available to each attendee shall be valued at least $5.00.

Enforcement

Prior to commencement of operations at the project, the Applicant shall submit a Transit Subsidy Plan to the District. The Transit Subsidy Plan shall demonstrate to the satisfaction of the District that transit subsidies and rebates will be provided to event attendees and event employees. The Transit Subsidy Plan shall include a copy of any agreements with transit

providers, shall identify the procedure by which transit rebates will be distributed, and other relevant materials such as sample informational items for disclosing transit subsidies to attendees. The Applicant shall submit an annual update to the Transit Subsidy Plan to the District each year prior to January 1. The annual update shall demonstrate to the satisfaction of the District that transit subsidies will be provided for the upcoming year. The District must be notified of all changes to transit subsidies prior to ticket sales, if possible.

Transit prices vary, one-day SDMTS regional transit passes (includes all bus and trolley lines) cost $5.00 (SDMTS 2017) and Coronado Ferry fees cost $4.75 per person per one-way trip (Flagship Cruises and Events 2017). Thus, at current fares GHG-1 would typically offer full subsidy of SDMTS transit or approximately half subsidy of roundtrip ferry.

5.1.1.2 Emissions Reduction

According to CAPCOA's report *Quantifying Greenhouse Gas Mitigation Measures* in urban environments, transit subsidies of greater than $2.98 typically achieve at least 20 percent reduction in automotive VMT and associated GHG emissions. Mitigation measure GHG-1 provides greater than the identified subsidy. Mobile source emissions would be anticipated to be reduced by 20 percent with mitigation measure GHG-1.

5.1.1.3 Mitigated Emissions

Tables 18 and 19 compare the mitigated 2020 emissions associated with maximum and anticipated project buildout to emissions under the BAU scenario. The complete model outputs for the project are included in Attachment 1.

Table 18
Mitigated Maximum 2020 GHG Emissions
(MT CO_2E per Year)

Emission Source	Project	Mitigated Project	Mitigation Reduction		Reduction from BAU
			MT CO_2E	Percent	
Vehicles	2,851	2,281	570	20%	32%
Energy Use	74	74	-	-	35%
Area Sources	>1	>1	-	-	-
Water Use	12	12	-	-	37%
Solid Waste Disposal	33	33	-	-	63%
Construction	29	29	-	-	-
TOTAL	**3,000**	**2,429**	**570**	**19%**	**33%**

Table 19 Mitigated Anticipated 2020 GHG Emissions (MT CO_2E per Year)					
Emission Source	Project	Mitigated Project	Mitigation Reduction		Reduction from BAU
			MT CO_2E	Percent	
Vehicles	1,672	1,338	334	20%	32%
Energy Use	57	57	-	-	35%
Area Sources	>1	>1	-	-	-
Water Use	11	11	-	-	36%
Solid Waste Disposal	23	23	-	-	63%
Construction	29	29	-	-	-
TOTAL	**1,792**	**1,458**	**334**	**19%**	**33%**

As shown in Tables 18 and 19, both maximum and anticipated buildout would be anticipated to achieve an approximately 33 percent reduction as compared to the BAU scenario with incorporation of mitigation measure GHG-1. As the project would be anticipated to achieve greater reductions than specific CAP GHG emissions reduction target, the project would be consistent with the CAP and accounted for in District emissions budgets. With incorporation of mitigation measure GHG-1, the impact of project GHG emissions in 2020 would be less than significant.

5.1.2 Project Emissions through 2030

As discussed in Section 3.4, the CAP projections and associated tenant-specific GHG emissions reduction targets do not extend past 2020. This analysis assesses project consistency with a 64 percent reduction from the BAU scenario based on District GHG emissions reduction targets for open space and the additional land use-driven reductions required at the state level to determine a performance standard of the fair share of reductions needed to demonstrate progress in the post-2020 time period.

Based on the methodology summarized in Section 4.1, Methodology and Assumptions, an estimate of the project's 2030 emissions under the BAU scenario has been prepared. Table 20 compares the 2030 project and BAU emissions. These emissions account for the effects of mitigation measure GHG-1. The complete model outputs for the project are included in Attachment 1.

Table 20 Project 2030 GHG Emissions (MT CO_2E per Year)				
Emission Source	BAU	2030 Project	Reduction from BAU	
			MT CO_2E	Percent
Vehicles	3,322	1,705	1,617	49%
Energy Use	114	60	54	47%
Area Sources	>1	>1	>1	-
Water Use	19	10	9	49%
Solid Waste Disposal	88	33	55	63%
Construction	29	29	0	-
TOTAL	**3,573**	**1,838**	**1,736**	**49%**

In 2030, the project would generate 1,838 MT CO_2E. As shown in Table 20, this represents an approximate reduction 49 percent as compared to the BAU scenario. The reductions achieved are primarily associated with mitigation measure GHG-1 and state vehicle emissions regulations such as the Advanced Clean Cars Program. Other reductions are attributable to regulatory programs such as California RPS 2030 requirements, CalGreen, and AB 341.

As shown, the project would not achieve the District's 2030 GHG emissions reduction target of 64 percent reduction from the BAU scenario. Thus, project emissions may contribute to an emissions increase that conflict with statewide reduction efforts. The impact of Project GHG emissions in 2030 would be significant.

5.1.2.1 Mitigation

Mitigation measures GHG-2 through GHG-9 would address emissions associated with project energy use, area source emissions, water use, solid waste disposal, and construction.

GHG-2: LED Lighting

Requirements on Applicant

Prior to commencement of operations, the project Applicant shall install light-emitting diode (LED) light bulbs in all compatible fixtures.

Enforcement

Prior to commencement of operations, the Applicant shall demonstrate to the satisfaction of the District that the required light fixtures are equipped with LED light bulbs.

GHG-3: Solar Photovoltaic Panels

Requirements on Applicant

Prior to January 1, 2030, the project Applicant shall install solar photovoltaic (PV) systems capable of a total generation equivalent to the forecasted electricity demand, 187,691 kWh per year.

Enforcement

Prior to January 1, 2030, the Applicant shall demonstrate to the satisfaction of the District that the required solar PV panels have been installed and are in operation as required above.

GHG-4: High-Efficiency Water Heater

Requirements on Applicant

Prior to commencement of operations at the project, the project Applicant shall install instantaneous (a.k.a. "tankless") water heater(s) that meet U.S. EPA Energy Star criteria. Tankless water heaters shall meet all water heating demands of the proposed performance and event venue including, but not limited to, the performance back-of-house facilities and subgrade restrooms.

Enforcement

Prior to commencement of operations at the project, the Applicant shall demonstrate to the satisfaction of the District that the required tankless water heaters have been installed and meet U.S. EPA Energy Star criteria.

GHG-5: All-Electric Landscaping Equipment

Requirements on Applicant

The project Applicant shall require through contract specifications that all landscaping within the Bayside Performance Park shall be maintained using all-electric equipment.

Enforcement

Prior to January 1, 2030, the Applicant shall demonstrate to the satisfaction of the District that landscaping maintenance agreements specify the use of all-electric landscaping equipment.

GHG-6: Low Flow Water Fixtures

Requirements on Applicant

Prior to commencement of operations at the project, the project Applicant shall install low flow water fixtures in the project. Low flow water fixtures shall include toilets that use less than 1.28 gallons per flush, urinals that use less than 0.5 gallon per flush, bathroom sinks that use less than 1.5 gallons per minute, showerheads that use less than 2.0 gallons per minute, kitchen sinks that include pre-rinse spray valves, and irrigation systems that are connected to weather sensors.

Enforcement

Prior to commencement of operations at the project, the Applicant shall demonstrate to the satisfaction of the District that the low flow water fixtures required above have been installed.

GHG-7: Drought-Tolerant Landscaping

Requirements on Applicant

Prior to the removal of any existing trees, the Applicant shall prepare and submit to the District for approval a landscape plan for the project site that details landscaping to be installed immediately following construction of the project and prior to reopening of EMPS. All landscaping shall use very low- to moderate-water use species, with the very low-water use species used to the highest extent feasible. Landscaping shall comply with District's Tenant Landscaping Improvements and Maintenance standards (BPC Policy No. 713) and the District's Landscape Development Manual Guidelines (Appendix A to BPC Policy No. 713) and shall exclude any species on the District's invasive plant species list.

Enforcement

Prior to commencement of operations at the project, the Applicant shall demonstrate to the satisfaction of the District that all landscaping within the Bayside Performance Park consists of drought-tolerant plants.

GHG-8: Increased Recycling

Requirements on Applicant

The project Applicant shall implement a solid waste recycling program at every event. The program shall include arrangement of recycling hauling services at regular intervals, recycling collection bins adjacent to all waste collection bins, signs that encourage recycling adjacent to recycling collection bins, and diversion of all green waste generated by landscaping activities. The interval for recycling hauling services shall be weekly or more frequent if necessitated by limited recycling storage. Recycling collection bins shall be emptied by designated staff members when full; staff members shall not wait until after the conclusion of events to empty full recycle collection bins.

The solid waste recycling program shall achieve a 50 percent diversion of all solid waste generated on-site. The Applicant shall expand the solid waste recycling measures to achieve this goal as necessary. Expansion may include, but is not limited to, selection of saleable items that include recycled materials or increased recycling collection bin signage.

Enforcement

Each year of operation, prior to January 31, the Applicant shall submit to the District a description of the recycling program and documentation of contracted solid waste disposal and recycling services. The documentation

shall include the weight (tons) or volume (cubic yards) of all solid waste collected by disposal and recycling collection services.

GHG-9: Tier IV Final CARB-Certified Construction Equipment

Requirements on Applicant

All heavy-duty diesel-powered demolition, grading, and construction equipment shall be a minimum of Tier IV Final CARB-certified.

Enforcement

Prior to issuance of grading permits, the Applicant shall demonstrate to the satisfaction of the District that all contracting agreements for construction of the project require the use of Tier IV Final construction equipment.

5.1.2.2 Emissions Reduction

Mitigation measure GHG-2 would require that a minimum of 75 percent of light fixtures be equipped with LED light bulbs and would thereby reduce project electricity demand. As compared to traditional light bulbs, LED bulbs produce 70 to 90 percent less power to provide the same level of illumination (U.S. EPA 2017a). Thus, use of LED bulbs would reduce lighting electricity demand and associated GHG emissions by 70 to 90 percent. Consistent with mitigation measure GHG-3, project electricity demand would be supplied by renewable generation sources (solar). Thus, mitigation measure GHG-2 would not achieve quantifiable emissions reductions. Nonetheless, mitigation measure GHG-2 is required to reduce project electricity demand.

Mitigation measure GHG-3 would require the installation of solar PV panels estimated to generate approximately 187,691 kWh annually and would thereby offset project's annual electricity demand through equivalent renewable energy generation. Based on regional solar generation estimates provided in Table AE-2.1 of the CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, solar PV systems in San Diego County typically generate approximately 1,700 kWh per kW installed (CAPCOA 2010). Thus, project solar panels are anticipated to have an approximate system capacity of 110.4 kW; specific orientation is likely to include 325 panels rated at 340 Watts. Reductions achieved by mitigation measure GHG-3 were estimated within CalEEMod.

Mitigation measure GHG-4 would require the use of high-efficiency water heaters and would thereby reduce project natural gas demand. Whereas conventional water heaters maintain a supply (tank) of hot water, instantaneous water heaters provide hot water only as it is needed. As a result, instantaneous water heaters eliminate energy loss associated with heat transfer while hot water is stored. The California Consumer Energy Center estimates that tankless water heaters reduce energy used to heat water by 10 to 20 percent for typical residences (CEC 2016). As natural gas savings are achieved through the elimination of heat loss during hot water storage, the natural gas savings associated with instantaneous water heaters correspond inversely to the frequency of use. The proposed use

is likely to have highly infrequent hot water use as it is unlikely to use hot water between events. Thus, natural gas savings are anticipated to be greater than the natural gas savings that would be achieved at residences. At this time the frequency of the hot water use of the project is not known; thus, GHG reductions achieved by this mitigation measure are not quantifiable. Nonetheless, mitigation measure GHG-4 is required to reduce project natural gas use.

Mitigation measure GHG-5 would require the use of all-electric landscaping equipment and would thereby reduce area source GHG emissions associated with the project. Replacement of gas-powered landscape equipment with all-electric landscape equipment would result in the elimination of direct landscaping emissions and result in indirect emissions reduction associated with electricity use. Reductions achieved by mitigation measure GHG-5 were estimated within CalEEMod.

Mitigation measure GHG-6 would require the use of low flow water fixtures and would thereby reduce project water use. Low flow efficiency rates identified in GHG-6 correspond to U.S. EPA WaterSense labels. Products that achieve U.S. EPA WaterSense labels are 20 percent more efficient that average products in that category (U.S. EPA 2017b). Reductions achieved by mitigation measure GHG-5 were estimated within CalEEMod as a 20 percent indoor water conservation strategy.

Mitigation measure GHG-7 would require the use of drought-tolerant landscaping plants and would thereby reduce project water use. The water use reduction achieved by drought-tolerant landscaping plants is not known at this time. For the purposes of modeling emission reductions, drought-tolerant landscaping was estimated to achieve a 25 percent reduction in outdoor water use. Reductions achieved by mitigation measure GHG-5 were estimated within CalEEMod as a 25 percent outdoor water conservation strategy.

Mitigation measure GHG-8 would require the Applicant to implement a solid waste recycling program that achieves 50 percent diversion of solid waste. Reductions achieved by mitigation measure GHG-8 were estimated within CalEEMod as 50 percent in recycling and composting services.

Mitigation measure GHG-9 would require the use of Tier IV Final CARB-Certified Construction Equipment. Reductions achieved by mitigation measure GHG-5 were estimated within CalEEMod.

5.1.2.3 Mitigated Emissions

Table 21 compares the mitigated 2030 emissions associated with the project to emissions from the BAU scenario. The complete model outputs for the project are included in Attachment 1.

Table 21
Mitigated Anticipated 2030 GHG Emissions
(MT CO_2E per Year)

Emission Source	Project	Mitigated Project	Mitigation Reduction		Reduction from BAU
			MT CO_2E	Percent	
Vehicles	1,705	1,705	-	-	49%
Energy Use	60	26	34	57%	77%
Area Sources	>1	>1	>1	46%	46%
Water Use[1]	10	7	2	23%	61%
Solid Waste Disposal	33	17	17	50%	81%
Construction	29	24	6	19%	19%
TOTAL	**1,838**	**1,779**	**59**	**3%**	**50%**

[1] Water use include outdoor water use in portions of EMPS that would be re-oriented as part of the project. Lawn areas in EMPS that are outside of Bayside Performance Park would be maintained by the District and the project re-orientation of lawn areas would be like-for-like. Thus, the project has limited ability to reduce outdoor water use from these lawn areas.

As shown in Table 21, feasible mitigation of project energy use, area source emissions, water use, solid waste disposal, and construction would achieve an additional 59 MT CO_2E reduction in project emissions. The overall reduction from BAU would increase from 49 to 50 percent. Thus, with all feasible mitigation the project would not achieve the District's 2030 GHG emissions reduction target of 64 percent reduction from BAU scenario.

Even the theoretical elimination of all GHG emissions, aside from mobile sources, would not achieve the District's 2030 GHG emissions reduction target[2]. Thus, the District's 2030 GHG emissions reduction target is unachievable without additional mitigation of mobile source GHG emissions. Mitigation measure GHG-1 would require transit subsidies. Project design features would also include installation of an electric vehicle charging station that would service two "park visitor only" parking stalls.[3] Although the project is located in an area well-served by mass transit and conveniently accessible by pedestrians, these characteristics are not considered project design features because the project would replace an existing venue at the same location. Therefore modeling does not calculate additional GHG emission reductions achieved by site location.[4,5] The project has limited ability to influence distance which attendees travel to attend events, the efficiency of attendee vehicles, or the transportation mode choice of attendees. Thus, no additional feasible mitigation measures have been identified.

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[2] Theoretical elimination of the all non-mobile sources would achieve a 54 percent reduction from the BAU scenario. (3,462 – 1,648) ÷ 3,462 ≈ 52%; 52% < 64%

[3] Reductions achieved through installation of electric vehicle charging stations are not quantifiable.

[4] The project site is in proximity to mass transit stations including the Fifth Avenue Ferry Landing (ferry) and the Gaslamp Quarter Station (trolley). Traffic control and coordination with San Diego Metropolitan Transit System (SDTMS) and ferry operators to accommodate increased ridership associated with events is already associated with the existing venue.

[5] The proposed project is accessible to pedestrians and bicyclists via marina walk, an approximately 34-foot wide walkway that is closed off to automotive traffic.

As shown in Table 21, with incorporation of all feasible mitigation the project would not achieve 64 percent reduction from BAU scenario. Therefore, the project is not anticipated to achieve a downward emissions trajectory consistent with the state's 2030 or 2050 emission targets. The impact of project GHG emissions in 2030 would remain significant and unavoidable.

In qualitatively evaluating the project's emissions for consistency with 2030 and 2050 statewide emission targets, it is important to note that some of the broad-scale shifts in how energy is produced and transportation fuels are beyond the control of the project. Measures identified in the Draft Scoping Plan do not achieve emissions reductions that support 2030 statewide GHG reduction targets without reliance on the Cap-and-Trade Program. As discussed in Section 3.4, the extension of the Cap-and-Trade Program to 2030 is uncertain, and removal these uncertain GHG reductions necessitates an additional 15 percent reduction. The changes necessitated by the state's long-term climate policy will require additional policy and regulatory changes to achieve this additional 15 percent reduction. As discussed in Section 2.2.2.4, alternative regulatory changes to the Cap-and-Trade Program may include an increased RPS, an increased LCFS, a renewable pipeline gas standard, a flexible demand response from residential and commercial electric appliances, increased building energy efficiency standards, additional transportation demand measures, and additional sector-specific reductions from the oil and gas extraction sector, industrial sector, and refining sector. As a consequence, the extent to which the project's emissions and resulting impacts will be mitigated through implementation of such changes is not known. Furthermore, implementation of such additional policy and regulatory changes is in the jurisdiction of state-level agencies (e.g., CARB), not the District or the project. However, some of these measures (e.g., decarbonization, energy efficiency, efficiency, and reduced fossil-fuel-based vehicle miles traveled) can be facilitated, at least to some extent, through implementation of specific GHG reduction measures for developments such as the proposed project. Under this same rationale, if the proposed project did not implement measures to maximize energy efficiency or utilize renewable energy, the reductions may not be sufficient for an individual project to meet the aggressive 2030 and 2050 cumulative reduction goals. Mitigation measures GHG-1 through GHG-9 are necessary to support progress toward the 2030 and 2050 GHG reduction goals of EO B-30-15 and SB 32. Nonetheless, the impact of project GHG emissions in 2030 would remain significant even after the implementation of all feasible mitigation measures.

5.2 Applicable Plans, Policies, and Regulations Intended to Reduce GHG Emissions

5.2.1 State Plans, Policies, and Regulations

Project consistency with statewide GHG reduction targets established in AB 32, SB 32, EO B-30-15, and EO S-3-05 are discussed in Section 5.1. Project emissions would not demonstrate consistency with the 2030 statewide reduction target. Impacts would be significant and unavoidable even after the implementation of all feasible mitigation measures.

5.2.2 Local Plans, Policies, and Regulations

5.2.2.1 District Climate Action Plan Policies

The District's CAP includes numerous measures intended to reduce GHG emissions through improved roadway system management, trip and vehicle mile reductions, parking policy/pricing, alternative powered vehicles, transit system improvements, advanced technologies, land use/community design, energy conservation and efficiency, water conservation and recycling, alternative energy generation, and waste reduction and recycling.

The project proposes a land use that may be considered most similar to either the future port development tenant subtype events or the future port development tenant subtype open space (parks are considered open space). The reductions attributed to the events or open space tenant types are attributable to transportation-related reduction measures. Project consistency with all reduction measures applicable to event or open space tenant types is assessed in Table 22. It should be noted that several of the policies identified in Table 22 are the responsibility of the District and are beyond the scope of individual land use projects to effect; all policies related to sustainability are included for disclosure, regardless of whether or not the proposed project could reasonably conflict with the policy.

The CAP modeling did not take credit for (i.e., did not quantify) potential reductions of event or open space tenant type emissions from various other measures that address energy, water use, and waste sectors. Several of these measures may be considered relevant to the project. Project consistency with other potentially relevant measures is assessed in Table 23.

As discussed in Section 5.1.1, with incorporation of mitigation measure GHG-1 the project would achieve emission levels that are consistent with the CAP GHG emissions reduction targets. As discussed in Tables 22 and 23, the project would not conflict with CAP strategies intended to reduce GHG emissions. Therefore, the project would not conflict with implementation of local plans, policies, or regulations such as those identified in the District CAP; impacts would be less than significant.

Table 22 Project Consistency with CAP Strategies Applicable to Events or Open Space		
CAP Strategy	Description	Project Consistency
(TA) Alternative Powered Vehicles and Vessels and Advanced Technologies		
TA1	Support and promote the use of alternative fueled, electric or hybrid Port owned vehicles and vessels (also includes cargo handling equipment).	The project would not involve the use of port-owned vehicles or vessels. The project would not conflict with implementation of the policy.
TA2	Support and promote non-Port owned vehicles and vessels to achieve the lowest emissions possible using a mix of alternative fueled, electric or hybrid technology.	The project site currently includes 128 parking spaces. The project would reconfigure the parking lot and add four parking spaces for a total of 132 spaces. The Tideland Use and Occupancy Permit permits the Symphony to use up to 56 spaces during events, and remaining spaces are for public use of EMPS. As the project would alter the configuration of 132 spaces, the project would be required to pre-wire dedicated circuits for four electric vehicle charging spaces per the requirements of 2016 California Green Building Standards Section 5.106.5.3.3. In addition to required pre-wiring, the project would include installation of an electric vehicle charging station that would service two "park visitor only" parking stalls. The project would not conflict with implementation of the policy.
TA2.1	New developments to provide prioritized parking for electric vehicles and vehicles using alternative fuels.	The project would include installation of an electric vehicle charging station that would service two "park visitor only" parking stalls. These two parking stalls would be designated for electric vehicle parking. The project would not conflict with implementation of the policy.
TA2.2	Encourage the use of shared electric vehicles and similar low-carbon mobility options as alternatives to the private automobile.	The project would include installation of an electric vehicle charging station that would service two "park visitor only" parking stalls. The project would not conflict with implementation of the policy.

Table 22 Project Consistency with CAP Strategies Applicable to Events or Open Space		
CAP Strategy	Description	Project Consistency
(TL) Land Use/Community Design and Transit System Improvements		
TL1	Promote greater linkage between land uses and transit, as well as other modes of transportation.	The project would be located proximate to the mass transit stations including the Fifth Avenue Ferry Landing (ferry) and the Gaslamp Quarter Station (trolley). The project would not conflict with implementation of the policy. Mitigation measure GHG-1 would require transit subsidies for event attendees.
TL2	Increase bicycling and walking opportunities (safe infrastructure to priority destinations) as an alternative to driving.	The project is accessible to pedestrians and bicyclists via marina walk, an approximately 34-foot wide walkway that is closed off to automotive traffic. The project would replace the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park area with a 12-foot-wide promenade and install wayfinding signage and lighting. The project would not conflict with implementation of the policy.
TL3	Restrict the locations of drive-through businesses to reduce the impacts of vehicle idling on adjacent uses, such as housing, schools, and health care facilities.	The project would not include drive-through uses. The project would not conflict with implementation of the policy.
TT1	Encourage the expansion of the transit network; both passenger transit and rail freight transportation.	The project would not conflict with implementation of the policy.
TT2	Encourage increased transit performance (e.g., frequency and speed).	The project would be located proximate to the mass transit stations including the Fifth Avenue Ferry Landing (ferry) and the Gaslamp Quarter Station (trolley). The project would not conflict with implementation of the policy.
TT3	Encourage implementation of transit access improvements.	The project would not conflict with implementation of the policy.
(TP) Parking Policy/Pricing and Trip/Vehicle Mile Reductions		
TP1	Adopt a comprehensive parking policy to unbundle the true cost of providing parking. This policy will increase economic fairness while it reduces the frequency of people choosing to drive alone to work.	Parking for existing Bayside Summer Nights performances is $30. Parking for Bayside Performance Park events is anticipated to be priced at similar rates. These parking prices would discourage private vehicle use. The project would not conflict with implementation of the policy.
TP1.1	Use parking pricing to discourage private vehicle use, especially at peak times.	

Table 22 Project Consistency with CAP Strategies Applicable to Events or Open Space		
CAP Strategy	Description	Project Consistency
TP1.2	Reduce the available parking spaces for private vehicles while increasing the parking spaces for shared vehicles, bicycles, and other alternative modes of transportation.	Parking for Bayside Performance Park event attendees would be contracted at nearby locations such as the Fifth Avenue Landing Parking Lot, the Hilton Parking Garage, the Convention Center Parking Garage, Gaslamp Area Local Parking Lots, Copley Symphony Hall Area Local Parking Lots, and BAE Systems Overflow Parking Lots. The project would not construct new parking spaces to accommodate event attendees in private vehicles. Thus, the project would not increase available parking for private vehicles. Additionally, the project would ensure bicycle parking is within or adjacent to the Bayside Performance Park and would include installation of an electric vehicle charging station that would service two "park visitor only" parking stalls in the EMPS parking lot. Thus, the project would increase spaces for alternative modes of transportation. The project would not conflict with implementation of the policy.
TP1.3	Use parking pricing to discourage private vehicle use, especially at peak times.	Parking for existing Bayside Summer Nights performances is $30.Parking for Bayside Performance Park events is anticipated to be priced at similar rates. These parking prices would discourage private vehicle use. The project would not conflict with implementation of the policy.
TP2	Event Parking Policies. Use the approach outlined in "A Plan to Efficiently and Conveniently Unbundle Car Parking Costs". Car parking should be operated as a business for the people of driving age that attend the events.	
TV1	Implement trip reduction programs, such as ride sharing, telecommuting, and alternative work schedules, commute trip reduction marketing, and employer-sponsored vanpool/shuttle.	Mitigation measure GHG-1 would require Applicant to provide subsidies for local mass transit. This measure would reduce vehicle trips. The project would not conflict with implementation of the policy.

Table 22 Project Consistency with CAP Strategies Applicable to Events or Open Space		
CAP Strategy	Description	Project Consistency
(TR) Roadway System Management		
TR1	Implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions on general roadways within Port tidelands.	The project would include a Traffic Management Plan that identifies measures to improve mobility and efficiency during events. These measures would include traffic control officers at affected intersections consistent with the event size. The project would not conflict with implementation of the policy.
TR2	Implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions at maritime facilities.	The project would not conflict with implementation of the policy.
TR2.1	Promote fuel-efficient, "eco-driving" practices such as reducing idling, slower driving speeds, gently accelerating, and proper tire inflation, as new driver education program or as part of existing programs.	The project would not conflict with implementation of the policy.
TR2.2	Shift heavy duty truck operations from peak hours during daytime to off peak hours during the nighttime and weekends to reduce traffic congestion.	The project would not generate substantial truck traffic. The project would not conflict with implementation of the policy.
TR2.3	Port Trucks – Convert to two-stage terminal entry gate system (or equivalent capabilities) to segregate and handle exceptions without delaying routine transactions.	The project would not conflict with implementation of the policy.
TR2.4	Port Trucks – Implement the use of technologies, such as OCR or RFID, where feasible to automate, streamline, and routinize terminal gate processing and reduce delays.	The project would not conflict with implementation of the policy.
TR2.5	Port Trucks – Extend gate hours to accommodate peaking and reduce delays.	The project would not conflict with implementation of the policy.
TR2.6	Port Trucks – Eliminate gate closures to reduce delays and idling (e.g., lunch or other breaks).	The project would not conflict with implementation of the policy.
TR2.7	Port Trucks – Implement appointment systems to make terminal transactions more predictable and reduce gate and container yard congestion.	The project would not conflict with implementation of the policy.
TR2.8	Port Trucks – Implement terminal information systems to ensure that import containers are ready to be picked up.	The project would not conflict with implementation of the policy.

Table 22 Project Consistency with CAP Strategies Applicable to Events or Open Space		
CAP Strategy	Description	Project Consistency
TR2.9	Port Trucks – Implement a system of neutral chassis pools or trucker-supplied chassis to streamline in-terminal chassis logistics.	The project would not conflict with implementation of the policy.
TR2.10	Port Trucks – Institute a program to proactively maintain and flag defective chassis in terminal pools.	The project would not conflict with implementation of the policy.
TR2.11	Compliance with California Drayage truck rule engine standards for other, non-drayage heavy-duty trucks used by the Port or Port tenants.	The project would not conflict with implementation of the policy.

Table 23 Project Consistency with Other Potentially Relevant CAP Strategies		
CAP Strategy	Description	Project Consistency
(EB) Building Energy Use		
EB1	Establish green building standards and/or policy for new construction	The project would be constructed consistent with 2016 Title 24 energy and water efficiency requirements. The project would not conflict with implementation of the policy.
(EA) Alternative Energy Generation		
EA1	Implement on-site renewable energy generation policy for 2020 (solar power, wind power, methane recovery, wave power etc.).	The CAP does not attribute GHG emission reductions associated with alternative energy measures to events or open space tenant types. Thus, the project would not conflict with this policy. The project would not conflict with implementation of the policy. Mitigation measure GHG-3 would require the project to include solar PV panels by 2030. These panels are anticipated to generate 187,691 kWh annually and would thereby offset the project's annual electricity energy demand. The project would support implementation of the policy beyond what is accounted for in the CAP.
EA2	Implement on-site renewable energy generation policy for 2035 (solar power, wind power, methane recovery, wave power etc.).	
EA3	Implement on-site renewable energy generation policy for by 2050 (solar power, wind power, methane recovery, wave power etc.).	

Table 23 Project Consistency with Other Potentially Relevant CAP Strategies		
CAP Strategy	Description	Project Consistency
(EH) Heat Gain and Shading		
EH1	Adopt a Heat Island Mitigation Plan that uses cool roofs, cool pavements, and strategically placed shade trees, and actively inspect and enforce state requirements for cool roofs on non-residential re-roofing projects.	The project would utilize passive cooling techniques to control the building and performance stage shell temperatures and minimize energy consumption. This would include the use of natural ventilation and wind patterns through the structures, strategically placing shading, and use of dual glazing, green roofing, light colors, and reflective coatings. The project would include removal of approximately 81 trees and palms, and 55 new trees would be planted throughout EMPS. Urban heat islands occur when natural land cover is replaced with dense concentrations of pavement, buildings, or other surfaces that absorb and retain heat (U.S. EPA 2017c). The project would reduce the number of shade trees in EMPS and would include construction of a building with a total building footprint of 13,015 square feet. The project is not anticipated to contribute to an urban heat island, as the predominant characteristic of EMPS would remain a park with ample ornamental landscaping and minimal concentrations of pavement and buildings. The project would not conflict with implementation of the policy.
EH1.1	Shading Requirement: New development and large redevelopment or rehabilitation (for example, additions of more than 25,000 square feet commercial or 100,000 square feet industrial) to reduce exterior heat gain for 50% of non-roof impervious site landscape (roads, sidewalks, courtyards, parking lots, and driveways), including: * Paved surface shading with vegetation * Paving materials with high Solar Reflective Index * Covered parking with high Solar Reflective Index	
EH1.2	Shade Tree Planting Standards: Establish shade tree guidelines and specifications.	The landscaping would be required to comply with the District's Tenant Landscaping Improvements and Maintenance standards (BPC Policy No. 713) and the District's Landscape Development Manual Guidelines (Appendix A to BPC Policy No. 713). The project would not conflict with implementation of the policy.
EH3	Evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.	The majority of the project's ornamental landscaping would use "very low" water use plant species with some "low" or "moderate" water use species. The project would not conflict with implementation of the policy.

Table 23 Project Consistency with Other Potentially Relevant CAP Strategies		
CAP Strategy	Description	Project Consistency
(EL) Lighting		
EL1	Develop and implement performance standards for exterior lighting of commercial and industrial buildings and parking lots, which include minimum and maximum lighting levels while providing a safe environment.	The project would incorporate energy efficient light-emitting diode (LED) lighting that is directed such that light does not bleed into surrounding and light pollution is minimized. The project would not conflict with implementation of the policy.
EL2	Require the replacement of traffic lights with LED traffic lights.	
EL4	Replace light fixtures in non-Port facilities with lower energy bulbs such as fluorescent, LEDs, or CFLs.	
(WC) Water Conservation		
WC1	Adopt a Water Conservation Strategy.	The project's lawn areas would be composed of commercial-grade sand-based synthetic turf to reduce water consumption and maintenance requirements. The majority of the project's ornamental landscaping would use "very low" water use plant species with some "low" or "moderate" water use species. Indoor water use would be reduced through use of sensored, low-flow water use fixtures consistent with the District's standards. The project would not conflict with implementation of the policy.
WC1.2	Ensure that building standards and permit approval processes promote and support water conservation.	
WC1.4	Adopt a policy that would exceed the Water Efficient Landscape Ordinance which became State law on January 1, 2010.	The project would be subject to the Model Water Efficiency Landscape Ordinance (MWELO) requirements as outlined in 2016 CalGreen Section 5.304. These requirements exceed the 2010 Water Efficient landscape Ordinance. The project would not conflict with implementation of the policy.
Miscellaneous		
MP4	Require Port and encourage Port tenants to purchase goods and services that embody or create fewer GHG emissions.	The project would incorporate sustainable interior and exterior building materials that count toward Leadership in Energy & Environmental Design (LEED) credits. The project would not conflict with implementation of the policy.

6.0 Conclusions

The project includes public amenity enhancements at EMPS and associated discretionary actions, including, without limitation, a PMPA and a non-appealable Coastal Development Permit. The project entails development of a venue for the San Diego Symphony. The project site is a public park with grass areas, walkways, a pavilion, basketball courts, and fitness stations. The project proposes reorientation of park amenities and installation of a performance stage, including a synthetic turf seating area, a box office, dressing rooms, restrooms, and food pavilions.

This report evaluates the potential global climate change impacts associated with the project. In accordance with CEQA, this analysis evaluates the significance of the global climate change impacts in terms of whether (1) the project would result in GHG emissions that may have a significant impact on the environment and whether (2) the project would conflict with plans, policies, and regulations adopted for the purpose of reducing GHG emissions.

Under the first threshold, the project emissions in 2020 were assessed for consistency with a GHG emissions reduction target derived from the District's CAP forecasts for open space tenant subtypes, a 23 percent reduction from the BAU scenario. A 2030 GHG emissions reduction target was derived from the District's 2020 GHG emissions reduction target with modifications to reflect parallel statewide reductions from land use-driven sectors between 2020 and 2030. The 2030 GHG emission threshold was determined to be a 64 percent reduction from the BAU scenario.

As shown in Table 16, maximum operation of the project in 2020 could generate 3,000 MT CO_2E. As shown in Table 17, based on anticipated Bayside Performance Park programming (i.e. event schedule) the project would generate 1,792 MT CO_2E in 2020. Without mitigation, the project emissions in 2020 would not achieve the District's GHG emissions reduction target for open space. Mitigation measure GHG-1 would require the Applicant to provide transit subsidies valued at $5.00 to each event attendee. With incorporation of mitigation measure GHG-1, the project would achieve a 33 percent reduction from the BAU condition and therefore would be consistent with District's GHG emissions reduction target.

As shown in Table 20, the project would generate 1,838 MT CO_2E in 2030. Without mitigation, the project would not achieve the District's 2030 GHG reduction goal. Mitigation measures GHG-2 through GHG-9 would require the Applicant to mitigate project GHG emissions associated with energy use, area sources, water use, solid waste disposal, and construction. Specific mitigation would include LED lighting fixtures, solar photovoltaic panels, high-efficiency water heaters, all-electric landscaping equipment, low-flow water fixtures, drought-tolerant landscaping, increased recycling, and use of construction equipment that meets voluntary CARB-certified Tier IV Final standards. With incorporation of all feasible mitigation the project would achieve a 50 percent reduction from the BAU scenario. Therefore, project emissions would not achieve the District's 2030 GHG goal of 64 percent reduction from the BAU scenario. Impacts would be significant and unavoidable.

As the project would achieve 2020 GHG emissions reduction target derived from the District's CAP forecasts, the project would not impede achievement of 2020 state reduction goal codified by AB 32. As the project would not achieve the District's 2030 GHG emissions reduction target, the project may impede the 2030 state reduction goal identified by EO B-30-15 and codified by SB 32 and may also impede the 2050 state reduction goal identified by EO S-3-05. Impacts would be significant and unavoidable.

Local plans to reduce GHG emissions include the District CAP. As shown in Table 22 and 23, the project would be consistent with all CAP strategies related to event or open space (includes parks) land uses as well as other CAP strategies that may be relevant to the project; therefore, the project would not conflict with implementation of local plans, policies, or regulations.

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ATTACHMENT 1

CalEEMod Output–
Existing Use and Project Emissions

Summary Book

Greenhouse Gases

GHG Emissions Estimate (MTCO2e)									
	Existing 2016	2020 Max	2020 Max BAU	Reduction	Reduction (%)		2020 Mitigated Project	Reduction (MT)	Reduction (%)
Mobile	586	2,851	3,378	527	16%		2,281	570	32%
Energy	30	74	114	40	35%		74	0	35%
Area	0	0	0	0	0%		0	0	0%
Water	20	12	19	7	37%		12	0	37%
Waste	25	33	88	55	63%		33	0	63%
Construction	71	29	29	0	0%		29	0	0%
Total	**733**	**3,000**	**3,629**	**629**	**17%**		**2,429**	**570**	**33%**

Emission Source	2020 Project	2020 Project BAU	Reduction	Reduction (%)		2020 Mitigated Project	Reduction (MT)	Reduction (%)
Mobile	1,672	1,981	309	16%		1,338	334	32%
Energy	57	88	31	35%		57	0	35%
Area	0	0	0	0%		0	0	0%
Water	11	17	6	36%		11	0	36%
Waste	23	62	39	62%		23	0	62%
Construction	29	29	0	0%		29	0	0%
Total	**1,792**	**2,177**	**385**	**18%**		**1,458**	**334**	**33%**

Emission Source	2030 Project	2030 Project BAU	Reduction	Reduction (%)		2030 Mitigated Project	Reduction (MT)	Reduction (%)
Mobile	1,705	3,322	1,617	49%		1,705	0	49%
Energy	60	114	54	47%		26	34	77%
Area	0	0	0	0%		0	0	46%
Water	10	19	9	49%		7	2	61%
Waste	33	88	55	63%		17	17	81%
Construction	29	29	0	0%		24	6	19%
Total	**1,838**	**3,573**	**1,736**	**49%**		**1,779**	**59**	**50%**

Existing - Embarcadero Marina Park South and Transient Symphony

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
City Park	6.46	Acre	6.46	281,397.60	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2016
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	519.91	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - As of 2015 SDG&E has already achieved 2020 RPS goals. Energy intensity factor revised to account for 35.2 percent renewables procurement.

Land Use - 2.54 acres basketball courts and walkways (same with and without project), 1.8 acres parking (marginally different with project), 6.46 acres lawn area (project would replace much of the lawn area).

Construction Phase - Setup and take down of venue lasts 6 weeks.

Off-road Equipment - Setup/takedown requires forklifts, trucks, and golf carts

Off-road Equipment - Setup/takedown requires 3 forklifts, 50 trucks (counted as hauling trips), and 8 golf carts (not counted)

Off-road Equipment - Setup and Takedown equipment would require forklifts, trucks (hauling), and golf carts.

Trips and VMT - 75 workers per day (150 trips), 50 hauling trucks per day (100 trips)

Vehicle Trips - Based on project Traffic Impact Report. With annual attendance of 96,280 the existing temporary venue generates 60,868 trips per year.

Energy Use - Concert (Stage, concessions, and ticket booth) energy use (57,344 kWh) based on average between May 2014 and May 2016.

Solid Waste - EDCO reports 2016 waste generation to be 50.13 tons.

Operational Off-Road Equipment - Setup and takendown modeled as construction

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblConstructionPhase	NumDays	300.00	1.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	30.00	1.00
tblConstructionPhase	NumDays	10.00	30.00
tblEnergyUse	NT24E	0.00	0.21
tblOffRoadEquipment	HorsePower	89.00	97.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	519.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2016
tblSolidWaste	SolidWasteGenerationRate	0.56	50.13
tblTripsAndVMT	VendorTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripNumber	77.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	150.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	198.00	0.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00

tblVehicleTrips	ST_TR	22.75	25.81
tblVehicleTrips	SU_TR	16.74	25.81
tblVehicleTrips	WD_TR	1.89	25.81

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0365	0.3816	0.2450	7.5000e-004	0.0323	0.0130	0.0454	9.4700e-003	0.0121	0.0216	0.0000	70.9659	70.9659	7.9300e-003	0.0000	71.1641
Maximum	**0.0365**	**0.3816**	**0.2450**	**7.5000e-004**	**0.0323**	**0.0130**	**0.0454**	**9.4700e-003**	**0.0121**	**0.0216**	**0.0000**	**70.9659**	**70.9659**	**7.9300e-003**	**0.0000**	**71.1641**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0365	0.3816	0.2450	7.5000e-004	0.0323	0.0130	0.0454	9.4700e-003	0.0121	0.0216	0.0000	70.9658	70.9658	7.9300e-003	0.0000	71.1641
Maximum	**0.0365**	**0.3816**	**0.2450**	**7.5000e-004**	**0.0323**	**0.0130**	**0.0454**	**9.4700e-003**	**0.0121**	**0.0216**	**0.0000**	**70.9658**	**70.9658**	**7.9300e-003**	**0.0000**	**71.1641**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-23-2017**	**4-22-2017**	0.0430	0.0430
		Highest	0.0430	0.0430

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0149	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	30.2077	30.2077	1.2200e-003	2.3000e-004	30.3075
Mobile	0.1441	0.7514	2.2839	6.3900e-003	0.4908	9.6200e-003	0.5005	0.1315	9.1100e-003	0.1406	0.0000	585.1677	585.1677	0.0340	0.0000	586.0166
Waste						0.0000	0.0000		0.0000	0.0000	10.1759	0.0000	10.1759	0.6014	0.0000	25.2105
Water						0.0000	0.0000		0.0000	0.0000	0.0000	20.1664	20.1664	8.1000e-004	1.6000e-004	20.2330
Total	**0.1590**	**0.7514**	**2.2840**	**6.3900e-003**	**0.4908**	**9.6200e-003**	**0.5005**	**0.1315**	**9.1100e-003**	**0.1406**	**10.1759**	**635.5419**	**645.7179**	**0.6374**	**3.9000e-004**	**661.7677**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	0.0149	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	30.2077	30.2077	1.2200e-003	2.3000e-004	30.3075
Mobile	0.1441	0.7514	2.2839	6.3900e-003	0.4908	9.6200e-003	0.5005	0.1315	9.1100e-003	0.1406	0.0000	585.1677	585.1677	0.0340	0.0000	586.0166
Waste						0.0000	0.0000		0.0000	0.0000	10.1759	0.0000	10.1759	0.6014	0.0000	25.2105
Water						0.0000	0.0000		0.0000	0.0000	0.0000	20.1664	20.1664	8.1000e-004	1.6000e-004	20.2330
Total	**0.1590**	**0.7514**	**2.2840**	**6.3900e-003**	**0.4908**	**9.6200e-003**	**0.5005**	**0.1315**	**9.1100e-003**	**0.1406**	**10.1759**	**635.5419**	**645.7179**	**0.6374**	**3.9000e-004**	**661.7677**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/23/2017	1/23/2017	5	1	
2	Setup and Takendown	Site Preparation	1/24/2017	3/6/2017	5	30	
3	Mass and Fine Grading	Grading	3/7/2017	3/7/2017	5	1	
4	Structural and Site Work	Building Construction	3/8/2017	3/8/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	0		16	0.38

Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	2	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	0		221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	0		16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	0		84	0.74
Structural and Site Work	Skid Steer Loaders	0		65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Setup and Takendown	Forklifts	3	8.00	97	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Setup and Takendown	3	150.00	100.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0214	0.0115	2.0000e-005		1.1000e-003	1.1000e-003		1.0200e-003	1.0200e-003	0.0000	1.7800	1.7800	4.9000e-004	0.0000	1.7922
Total	**2.0500e-003**	**0.0214**	**0.0115**	**2.0000e-005**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**1.0200e-003**	**1.0200e-003**	**0.0000**	**1.7800**	**1.7800**	**4.9000e-004**	**0.0000**	**1.7922**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0214	0.0115	2.0000e-005		1.1000e-003	1.1000e-003		1.0200e-003	1.0200e-003	0.0000	1.7800	1.7800	4.9000e-004	0.0000	1.7922
Total	**2.0500e-003**	**0.0214**	**0.0115**	**2.0000e-005**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**1.0200e-003**	**1.0200e-003**	**0.0000**	**1.7800**	**1.7800**	**4.9000e-004**	**0.0000**	**1.7922**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Setup and Takendown - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0896	0.0613	7.0000e-005		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	6.9522	6.9522	2.1300e-003	0.0000	7.0055
Total	**0.0104**	**0.0896**	**0.0613**	**7.0000e-005**	**0.0000**	**7.3900e-003**	**7.3900e-003**	**0.0000**	**6.8000e-003**	**6.8000e-003**	**0.0000**	**6.9522**	**6.9522**	**2.1300e-003**	**0.0000**	**7.0055**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0800e-003	0.2148	0.0611	4.2000e-004	9.9600e-003	1.9900e-003	0.0119	2.8700e-003	1.9000e-003	4.7700e-003	0.0000	40.2857	40.2857	3.4700e-003	0.0000	40.3723
Worker	0.0106	8.6100e-003	0.0827	2.0000e-004	0.0180	1.4000e-004	0.0182	4.7900e-003	1.3000e-004	4.9200e-003	0.0000	17.8675	17.8675	6.7000e-004	0.0000	17.8842
Total	**0.0197**	**0.2234**	**0.1437**	**6.2000e-004**	**0.0280**	**2.1300e-003**	**0.0301**	**7.6600e-003**	**2.0300e-003**	**9.6900e-003**	**0.0000**	**58.1532**	**58.1532**	**4.1400e-003**	**0.0000**	**58.2566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0896	0.0613	7.0000e-005		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	6.9522	6.9522	2.1300e-003	0.0000	7.0055
Total	**0.0104**	**0.0896**	**0.0613**	**7.0000e-005**	**0.0000**	**7.3900e-003**	**7.3900e-003**	**0.0000**	**6.8000e-003**	**6.8000e-003**	**0.0000**	**6.9522**	**6.9522**	**2.1300e-003**	**0.0000**	**7.0055**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0800e-003	0.2148	0.0611	4.2000e-004	9.9600e-003	1.9900e-003	0.0119	2.8700e-003	1.9000e-003	4.7700e-003	0.0000	40.2857	40.2857	3.4700e-003	0.0000	40.3723
Worker	0.0106	8.6100e-003	0.0827	2.0000e-004	0.0180	1.4000e-004	0.0182	4.7900e-003	1.3000e-004	4.9200e-003	0.0000	17.8675	17.8675	6.7000e-004	0.0000	17.8842
Total	**0.0197**	**0.2234**	**0.1437**	**6.2000e-004**	**0.0280**	**2.1300e-003**	**0.0301**	**7.6600e-003**	**2.0300e-003**	**9.6900e-003**	**0.0000**	**58.1532**	**58.1532**	**4.1400e-003**	**0.0000**	**58.2566**

3.4 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.3400e-003	0.0000	4.3400e-003	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8700e-003	0.0340	0.0194	3.0000e-005		1.5400e-003	1.5400e-003		1.4100e-003	1.4100e-003	0.0000	2.8780	2.8780	8.8000e-004	0.0000	2.9000
Total	**2.8700e-003**	**0.0340**	**0.0194**	**3.0000e-005**	**4.3400e-003**	**1.5400e-003**	**5.8800e-003**	**1.8000e-003**	**1.4100e-003**	**3.2100e-003**	**0.0000**	**2.8780**	**2.8780**	**8.8000e-004**	**0.0000**	**2.9000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.3400e-003	0.0000	4.3400e-003	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8700e-003	0.0340	0.0194	3.0000e-005		1.5400e-003	1.5400e-003		1.4100e-003	1.4100e-003	0.0000	2.8780	2.8780	8.8000e-004	0.0000	2.9000
Total	**2.8700e-003**	**0.0340**	**0.0194**	**3.0000e-005**	**4.3400e-003**	**1.5400e-003**	**5.8800e-003**	**1.8000e-003**	**1.4100e-003**	**3.2100e-003**	**0.0000**	**2.8780**	**2.8780**	**8.8000e-004**	**0.0000**	**2.9000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5600e-003	0.0133	9.0900e-003	1.0000e-005		8.9000e-004	8.9000e-004		8.4000e-004	8.4000e-004	0.0000	1.2025	1.2025	3.0000e-004	0.0000	1.2099
Total	**1.5600e-003**	**0.0133**	**9.0900e-003**	**1.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2025**	**1.2025**	**3.0000e-004**	**0.0000**	**1.2099**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	1.5600e-003	0.0133	9.0900e-003	1.0000e-005		8.9000e-004	8.9000e-004		8.4000e-004	8.4000e-004	0.0000	1.2025	1.2025	3.0000e-004	0.0000	1.2099
Total	**1.5600e-003**	**0.0133**	**9.0900e-003**	**1.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.4000e-004**	**8.4000e-004**	**0.0000**	**1.2025**	**1.2025**	**3.0000e-004**	**0.0000**	**1.2099**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1441	0.7514	2.2839	6.3900e-003	0.4908	9.6200e-003	0.5005	0.1315	9.1100e-003	0.1406	0.0000	585.1677	585.1677	0.0340	0.0000	586.0166

Unmitigated	0.1441	0.7514	2.2839	6.3900e-003	0.4908	9.6200e-003	0.5005	0.1315	9.1100e-003	0.1406	0.0000	585.1677	585.1677	0.0340	0.0000	586.0166

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	166.73	166.73	166.73	1,301,208	1,301,208
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	166.73	166.73	166.73	1,301,208	1,301,208

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	21.44	21.44	21.44	33.00	48.00	19.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.556254	0.048998	0.194899	0.123259	0.021708	0.005733	0.014388	0.021527	0.001857	0.002335	0.006649	0.000721	0.001671
Parking Lot	0.556254	0.048998	0.194899	0.123259	0.021708	0.005733	0.014388	0.021527	0.001857	0.002335	0.006649	0.000721	0.001671
City Park	0.556254	0.048998	0.194899	0.123259	0.021708	0.005733	0.014388	0.021527	0.001857	0.002335	0.006649	0.000721	0.001671

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.2077	30.2077	1.2200e-003	2.3000e-004	30.3075
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.2077	30.2077	1.2200e-003	2.3000e-004	30.3075
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	59093.5	13.9359	5.6000e-004	1.1000e-004	13.9819
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**30.2077**	**1.2200e-003**	**2.4000e-004**	**30.3075**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	59093.5	13.9359	5.6000e-004	1.1000e-004	13.9819
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**30.2077**	**1.2200e-003**	**2.4000e-004**	**30.3075**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0149	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004
Unmitigated	0.0149	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0149					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004
Total	**0.0149**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.0000**	**2.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0149					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9000e-004	1.9000e-004	0.0000	0.0000	2.1000e-004
Total	**0.0149**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.0000**	**2.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.1664	8.1000e-004	1.6000e-004	20.2330
Unmitigated	20.1664	8.1000e-004	1.6000e-004	20.2330

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 7.69697	20.1664	8.1000e-004	1.6000e-004	20.2330
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.1664**	**8.1000e-004**	**1.6000e-004**	**20.2330**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 7.69697	20.1664	8.1000e-004	1.6000e-004	20.2330
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.1664**	**8.1000e-004**	**1.6000e-004**	**20.2330**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1759	0.6014	0.0000	25.2105
Unmitigated	10.1759	0.6014	0.0000	25.2105

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	50.13	10.1759	0.6014	0.0000	25.2105
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.1759**	**0.6014**	**0.0000**	**25.2105**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	50.13	10.1759	0.6014	0.0000	25.2105
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.1759**	**0.6014**	**0.0000**	**25.2105**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - BAU Maximum

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	780.79	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.011

1.3 User Entered Comments & Non-Default Data

Project Characteristics - BAU condition.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With maixmum annual attendance of 523,632 the project will generate 331,036 trips per year.

Vehicle Emission Factors - Alternative CO2 Emission Factors (Non-Pavley) for San Diego County 2020 annual.

Area Coating - SDAPCD Rule 67.0

Energy Use - BAU project energy use inflated to remove effects of Title 24. BAU energy use is 210,902 kWh and 274,503 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - BAU project water use inflated to remove effects of CalGreen. BAU project indoor water use 1,443,483 gallons per year. Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - BAU project waste generation inflated to remove effects of AB 341. BAU project waste generation is 175.2 tons per year.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	10.62
tblEnergyUse	NT24NG	7.25	13.83
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot

tblGrading	AcresOfGrading	202.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	780.79
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.011
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	0.55	175.20
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleEF	LDA	280.70	355.43
tblVehicleEF	LDA	60.62	73.55
tblVehicleEF	LDT1	349.50	411.15
tblVehicleEF	LDT1	74.92	84.69
tblVehicleEF	LDT2	393.35	483.75
tblVehicleEF	LDT2	84.92	100.45
tblVehicleEF	MDV	521.37	617.07
tblVehicleEF	MDV	111.22	127.34
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00

tblVehicleTrips	ST_TR	10.71	45.70
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	45.70
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	45.70
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	1,443,483.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.2858	0.1217	0.4074	0.1031	0.1126	0.2157	0.0000	315.7336	315.7336	0.0751	0.0000	317.6101
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7863	562.7863	0.0777	0.0000	564.7282
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.2858**	**0.1217**	**0.4074**	**0.1031**	**0.1128**	**0.2157**	**0.0000**	**562.7863**	**562.7863**	**0.0777**	**0.0000**	**564.7282**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2017	0.2432	2.9834	1.6920	3.3700e-003	0.1604	0.1217	0.2821	0.0546	0.1126	0.1672	0.0000	315.7333	315.7333	0.0751	0.0000	317.6098
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7860	562.7860	0.0777	0.0000	564.7279
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.1604**	**0.1217**	**0.2821**	**0.0546**	**0.1128**	**0.1672**	**0.0000**	**562.7860**	**562.7860**	**0.0777**	**0.0000**	**564.7279**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.44**	**0.00**	**19.23**	**35.34**	**0.00**	**13.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-1-2017**	**12-31-2017**	2.8419	2.8419
3	**4-1-2018**	**6-30-2018**	0.1326	0.1326
4	**7-1-2018**	**9-30-2018**	0.1073	0.1073
		Highest	2.8419	2.8419

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	113.7459	113.7459	3.9600e-003	1.6600e-003	114.3411
Mobile	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	3,374.0611	3,374.0611	0.1403	0.0000	3,377.5695
Waste						0.0000	0.0000		0.0000	0.0000	35.5640	0.0000	35.5640	2.1018	0.0000	88.1084
Water						0.0000	0.0000		0.0000	0.0000	0.4580	17.0643	17.5223	0.0477	1.3500e-003	19.1166
Total	**0.6317**	**2.8107**	**8.4074**	**0.0310**	**2.6682**	**0.0314**	**2.6996**	**0.7146**	**0.0296**	**0.7442**	**36.0220**	**3,504.8718**	**3,540.8938**	**2.2937**	**3.0100e-003**	**3,599.1360**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	113.7459	113.7459	3.9600e-003	1.6600e-003	114.3411
Mobile	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	3,374.0611	3,374.0611	0.1403	0.0000	3,377.5695
Waste						0.0000	0.0000		0.0000	0.0000	35.5640	0.0000	35.5640	2.1018	0.0000	88.1084
Water						0.0000	0.0000		0.0000	0.0000	0.4580	17.0643	17.5223	0.0477	1.3500e-003	19.1166
Total	**0.6317**	**2.8107**	**8.4074**	**0.0310**	**2.6682**	**0.0314**	**2.6996**	**0.7146**	**0.0296**	**0.7442**	**36.0220**	**3,504.8718**	**3,540.8938**	**2.2937**	**3.0100e-003**	**3,599.1360**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74
Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0867**	**7.7900e-003**	**0.0945**	**0.0131**	**7.2900e-003**	**0.0204**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0390**	**7.7900e-003**	**0.0468**	**5.9100e-003**	**7.2900e-003**	**0.0132**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7316	192.7316	0.0591	0.0000	194.2079
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.1412**	**0.0991**	**0.2403**	**0.0751**	**0.0912**	**0.1663**	**0.0000**	**192.7316**	**192.7316**	**0.0591**	**0.0000**	**194.2079**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7313	192.7313	0.0591	0.0000	194.2076
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.0636**	**0.0991**	**0.1626**	**0.0338**	**0.0912**	**0.1250**	**0.0000**	**192.7313**	**192.7313**	**0.0591**	**0.0000**	**194.2076**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012

Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4487	227.4487	0.0490	0.0000	228.6747
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4487**	**227.4487**	**0.0490**	**0.0000**	**228.6747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4484	227.4484	0.0490	0.0000	228.6744
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4484**	**227.4484**	**0.0490**	**0.0000**	**228.6744**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	3,374.0611	3,374.0611	0.1403	0.0000	3,377.5695
Unmitigated	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	3,374.0611	3,374.0611	0.1403	0.0000	3,377.5695

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Arena	907.15	907.15	907.15	7,079,505	7,079,505
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	907.15	907.15	907.15	7,079,505	7,079,505

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
City Park	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Other Non-Asphalt Surfaces	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Parking Lot	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	99.0962	99.0962	3.6800e-003	1.4000e-003	99.6043
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	99.0962	99.0962	3.6800e-003	1.4000e-003	99.6043
NaturalGas Mitigated	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
NaturalGas Unmitigated	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	274526	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4800e-003**	**0.0135**	**0.0113**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6497**	**14.6497**	**2.8000e-004**	**2.7000e-004**	**14.7368**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	274526	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4800e-003**	**0.0135**	**0.0113**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6497**	**14.6497**	**2.8000e-004**	**2.7000e-004**	**14.7368**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	210807	74.6595	2.7700e-003	1.0500e-003	75.0423
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**99.0962**	**3.6800e-003**	**1.3900e-003**	**99.6043**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	210807	74.6595	2.7700e-003	1.0500e-003	75.0423
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**99.0962**	**3.6800e-003**	**1.3900e-003**	**99.6043**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.5223	0.0477	1.3500e-003	19.1166
Unmitigated	17.5223	0.0477	1.3500e-003	19.1166

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.44348 / 0	7.1146	0.0473	1.2000e-003	8.6556
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.5223**	**0.0477**	**1.3500e-003**	**19.1167**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.44348 / 0	7.1146	0.0473	1.2000e-003	8.6556
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.5223**	**0.0477**	**1.3500e-003**	**19.1167**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.5640	2.1018	0.0000	88.1084
Unmitigated	35.5640	2.1018	0.0000	88.1084

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	175.2	35.5640	2.1018	0.0000	88.1084
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**35.5640**	**2.1018**	**0.0000**	**88.1084**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	175.2	35.5640	2.1018	0.0000	88.1084
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**35.5640**	**2.1018**	**0.0000**	**88.1084**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - Maximum

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	519.91	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - As of 2015 SDG&E has already achieved 2020 RPS goals. Energy intensity factor revised to account for 35.2 percent renewables procurement.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With maixmum annual attendance of 523,632 the project will generate 331,036 trips per year.

Area Coating - SDAPCD Rule 67.0

Energy Use - Maximum project energy use is 187,691 kWh and 249,549 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Maximum project water use would be 1,154,787 gallons per year (indoor use). Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Maximum project waste generation would be 65.7 tons.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	9.46
tblEnergyUse	NT24NG	7.25	12.57
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot
tblGrading	AcresOfGrading	202.50	10.80

tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	519.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	0.55	65.70
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	45.70
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	45.70
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	45.70
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	1,154,787.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.2858	0.1217	0.4074	0.1031	0.1126	0.2157	0.0000	315.7336	315.7336	0.0751	0.0000	317.6101
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7863	562.7863	0.0777	0.0000	564.7282
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.2858**	**0.1217**	**0.4074**	**0.1031**	**0.1128**	**0.2157**	**0.0000**	**562.7863**	**562.7863**	**0.0777**	**0.0000**	**564.7282**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.1604	0.1217	0.2821	0.0546	0.1126	0.1672	0.0000	315.7333	315.7333	0.0751	0.0000	317.6098
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7860	562.7860	0.0777	0.0000	564.7279
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.1604**	**0.1217**	**0.2821**	**0.0546**	**0.1128**	**0.1672**	**0.0000**	**562.7860**	**562.7860**	**0.0777**	**0.0000**	**564.7279**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.44**	**0.00**	**19.23**	**35.34**	**0.00**	**13.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

1	**10-1-2017**	**12-31-2017**	2.8419	2.8419
3	**4-1-2018**	**6-30-2018**	0.1326	0.1326
4	**7-1-2018**	**9-30-2018**	0.1073	0.1073
		Highest	2.8419	2.8419

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	73.8708	73.8708	2.7000e-003	7.1000e-004	74.1499
Mobile	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	2,847.4258	2,847.4258	0.1403	0.0000	2,850.9341
Waste						0.0000	0.0000		0.0000	0.0000	13.3365	0.0000	13.3365	0.7882	0.0000	33.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3664	10.4763	10.8426	0.0381	9.7000e-004	12.0827
Total	**0.6315**	**2.8094**	**8.4064**	**0.0310**	**2.6682**	**0.0313**	**2.6995**	**0.7146**	**0.0295**	**0.7441**	**13.7029**	**2,931.7732**	**2,945.4761**	**0.9692**	**1.6800e-003**	**2,970.2078**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	73.8708	73.8708	2.7000e-003	7.1000e-004	74.1499

Mobile	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	2,847.4258	2,847.4258	0.1403	0.0000	2,850.9341
Waste						0.0000	0.0000		0.0000	0.0000	13.3365	0.0000	13.3365	0.7882	0.0000	33.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3664	10.4763	10.8426	0.0381	9.7000e-004	12.0827
Total	**0.6315**	**2.8094**	**8.4064**	**0.0310**	**2.6682**	**0.0313**	**2.6995**	**0.7146**	**0.0295**	**0.7441**	**13.7029**	**2,931.7732**	**2,945.4761**	**0.9692**	**1.6800e-003**	**2,970.2078**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38

Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74
Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0867**	**7.7900e-003**	**0.0945**	**0.0131**	**7.2900e-003**	**0.0204**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0390**	**7.7900e-003**	**0.0468**	**5.9100e-003**	**7.2900e-003**	**0.0132**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7316	192.7316	0.0591	0.0000	194.2079
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.1412**	**0.0991**	**0.2403**	**0.0751**	**0.0912**	**0.1663**	**0.0000**	**192.7316**	**192.7316**	**0.0591**	**0.0000**	**194.2079**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7313	192.7313	0.0591	0.0000	194.2076
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.0636**	**0.0991**	**0.1626**	**0.0338**	**0.0912**	**0.1250**	**0.0000**	**192.7313**	**192.7313**	**0.0591**	**0.0000**	**194.2076**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871

Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4487	227.4487	0.0490	0.0000	228.6747
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4487**	**227.4487**	**0.0490**	**0.0000**	**228.6747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4484	227.4484	0.0490	0.0000	228.6744
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4484**	**227.4484**	**0.0490**	**0.0000**	**228.6744**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459

Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	2,847.4258	2,847.4258	0.1403	0.0000	2,850.9341
Unmitigated	0.5226	2.7972	8.3959	0.0309	2.6682	0.0304	2.6986	0.7146	0.0286	0.7431	0.0000	2,847.4258	2,847.4258	0.1403	0.0000	2,850.9341

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	907.15	907.15	907.15	7,079,505	7,079,505
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	907.15	907.15	907.15	7,079,505	7,079,505

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
City Park	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Other Non-Asphalt Surfaces	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Parking Lot	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	60.5557	60.5557	2.4500e-003	4.7000e-004	60.7557
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	60.5557	60.5557	2.4500e-003	4.7000e-004	60.7557
NaturalGas Mitigated	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942
NaturalGas Unmitigated	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	249515	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.3500e-003**	**0.0122**	**0.0103**	**7.0000e-005**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**13.3150**	**13.3150**	**2.6000e-004**	**2.4000e-004**	**13.3942**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	249515	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.3500e-003**	**0.0122**	**0.0103**	**7.0000e-005**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**13.3150**	**13.3150**	**2.6000e-004**	**2.4000e-004**	**13.3942**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Arena	187781	44.2839	1.7900e-003	3.4000e-004	44.4301
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**60.5557**	**2.4500e-003**	**4.7000e-004**	**60.7557**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	187781	44.2839	1.7900e-003	3.4000e-004	44.4301
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**60.5557**	**2.4500e-003**	**4.7000e-004**	**60.7557**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.8426	0.0381	9.7000e-004	12.0827
Unmitigated	10.8426	0.0381	9.7000e-004	12.0827

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.15479 / 0	3.9124	0.0378	9.2000e-004	5.1296

City Park	0 / 2.64509	6.9302	2.8000e-004	5.0000e-005	6.9531
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.8426**	**0.0381**	**9.7000e-004**	**12.0827**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.15479 / 0	3.9124	0.0378	9.2000e-004	5.1296
City Park	0 / 2.64509	6.9302	2.8000e-004	5.0000e-005	6.9531
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.8426**	**0.0381**	**9.7000e-004**	**12.0827**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	13.3365	0.7882	0.0000	33.0406
Unmitigated	13.3365	0.7882	0.0000	33.0406

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	65.7	13.3365	0.7882	0.0000	33.0406
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.3365**	**0.7882**	**0.0000**	**33.0406**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	65.7	13.3365	0.7882	0.0000	33.0406
City Park	0	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.3365**	**0.7882**	**0.0000**	**33.0406**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - BAU Anticipated

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	780.79	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.011

1.3 User Entered Comments & Non-Default Data

Project Characteristics - BAU condition.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With annual attendance of 306,800 the project will generate 193,957 trips per year.

Vehicle Emission Factors - Alternative CO2 Emission Factors (Non-Pavley) for San Diego County 2020 annual.

Area Coating - SDAPCD Rule 67.0

Energy Use - BAU project energy use inflated to remove effects of Title 24. BAU energy use is 149,086 kWh and 194,046 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - BAU project water use inflated to remove effects of CalGreen. BAU project indoor water use 1,020,393 gallons per year. Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - BAU project waste generation inflated to remove effects of AB 341. BAU project waste generation is 123.9 tons per year.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	7.51
tblEnergyUse	NT24NG	7.25	9.78
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot

tblGrading	AcresOfGrading	202.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	780.79
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.011
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	0.55	123.90
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleEF	LDA	280.70	355.43
tblVehicleEF	LDA	60.62	73.55
tblVehicleEF	LDT1	349.50	411.15
tblVehicleEF	LDT1	74.92	84.69
tblVehicleEF	LDT2	393.35	483.75
tblVehicleEF	LDT2	84.92	100.45
tblVehicleEF	MDV	521.37	617.07
tblVehicleEF	MDV	111.22	127.34
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00

tblVehicleTrips	ST_TR	10.71	26.80
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	26.80
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	26.80
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	1,020,393.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.2858	0.1217	0.4074	0.1031	0.1126	0.2157	0.0000	315.7336	315.7336	0.0751	0.0000	317.6101
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7863	562.7863	0.0777	0.0000	564.7282
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.2858**	**0.1217**	**0.4074**	**0.1031**	**0.1128**	**0.2157**	**0.0000**	**562.7863**	**562.7863**	**0.0777**	**0.0000**	**564.7282**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2017	0.2432	2.9834	1.6920	3.3700e-003	0.1604	0.1217	0.2821	0.0546	0.1126	0.1672	0.0000	315.7333	315.7333	0.0751	0.0000	317.6098
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7860	562.7860	0.0777	0.0000	564.7279
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.1604**	**0.1217**	**0.2821**	**0.0546**	**0.1128**	**0.1672**	**0.0000**	**562.7860**	**562.7860**	**0.0777**	**0.0000**	**564.7279**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.44**	**0.00**	**19.23**	**35.34**	**0.00**	**13.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-1-2017**	**12-31-2017**	2.8419	2.8419
3	**4-1-2018**	**6-30-2018**	0.1326	0.1326
4	**7-1-2018**	**9-30-2018**	0.1073	0.1073
		Highest	2.8419	2.8419

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	87.5923	87.5923	3.0700e-003	1.2800e-003	88.0499
Mobile	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,978.6616	1,978.6616	0.0823	0.0000	1,980.7191
Waste						0.0000	0.0000		0.0000	0.0000	25.1506	0.0000	25.1506	1.4864	0.0000	62.3095
Water						0.0000	0.0000		0.0000	0.0000	0.3237	15.1133	15.4370	0.0338	1.0000e-003	16.5797
Total	**0.4151**	**1.6499**	**4.9319**	**0.0182**	**1.5647**	**0.0186**	**1.5833**	**0.4191**	**0.0175**	**0.4365**	**25.4743**	**2,081.3677**	**2,106.8420**	**1.6055**	**2.2800e-003**	**2,147.6586**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	87.5923	87.5923	3.0700e-003	1.2800e-003	88.0499
Mobile	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,978.6616	1,978.6616	0.0823	0.0000	1,980.7191
Waste						0.0000	0.0000		0.0000	0.0000	25.1506	0.0000	25.1506	1.4864	0.0000	62.3095
Water						0.0000	0.0000		0.0000	0.0000	0.3237	15.1133	15.4370	0.0338	1.0000e-003	16.5797
Total	**0.4151**	**1.6499**	**4.9319**	**0.0182**	**1.5647**	**0.0186**	**1.5833**	**0.4191**	**0.0175**	**0.4365**	**25.4743**	**2,081.3677**	**2,106.8420**	**1.6055**	**2.2800e-003**	**2,147.6586**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74
Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0867**	**7.7900e-003**	**0.0945**	**0.0131**	**7.2900e-003**	**0.0204**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0390**	**7.7900e-003**	**0.0468**	**5.9100e-003**	**7.2900e-003**	**0.0132**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7316	192.7316	0.0591	0.0000	194.2079
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.1412**	**0.0991**	**0.2403**	**0.0751**	**0.0912**	**0.1663**	**0.0000**	**192.7316**	**192.7316**	**0.0591**	**0.0000**	**194.2079**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7313	192.7313	0.0591	0.0000	194.2076
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.0636**	**0.0991**	**0.1626**	**0.0338**	**0.0912**	**0.1250**	**0.0000**	**192.7313**	**192.7313**	**0.0591**	**0.0000**	**194.2076**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012

Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4487	227.4487	0.0490	0.0000	228.6747
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4487**	**227.4487**	**0.0490**	**0.0000**	**228.6747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4484	227.4484	0.0490	0.0000	228.6744
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4484**	**227.4484**	**0.0490**	**0.0000**	**228.6744**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,978.6616	1,978.6616	0.0823	0.0000	1,980.7191
Unmitigated	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,978.6616	1,978.6616	0.0823	0.0000	1,980.7191

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Arena	531.98	531.98	531.98	4,151,657	4,151,657
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	531.98	531.98	531.98	4,151,657	4,151,657

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
City Park	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Other Non-Asphalt Surfaces	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Parking Lot	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.2327	77.2327	2.8700e-003	1.0900e-003	77.6286
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.2327	77.2327	2.8700e-003	1.0900e-003	77.6286
NaturalGas Mitigated	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3597	10.3597	2.0000e-004	1.9000e-004	10.4212
NaturalGas Unmitigated	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3597	10.3597	2.0000e-004	1.9000e-004	10.4212

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	194133	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3597	10.3597	2.0000e-004	1.9000e-004	10.4212
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0500e-003**	**9.5200e-003**	**7.9900e-003**	**6.0000e-005**		**7.2000e-004**	**7.2000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**10.3597**	**10.3597**	**2.0000e-004**	**1.9000e-004**	**10.4212**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	194133	1.0500e-003	9.5200e-003	7.9900e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	10.3597	10.3597	2.0000e-004	1.9000e-004	10.4212
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0500e-003**	**9.5200e-003**	**7.9900e-003**	**6.0000e-005**		**7.2000e-004**	**7.2000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**10.3597**	**10.3597**	**2.0000e-004**	**1.9000e-004**	**10.4212**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	149074	52.7959	1.9600e-003	7.4000e-004	53.0666
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**77.2327**	**2.8700e-003**	**1.0800e-003**	**77.6286**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	149074	52.7959	1.9600e-003	7.4000e-004	53.0666
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**77.2327**	**2.8700e-003**	**1.0800e-003**	**77.6286**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.4370	0.0338	1.0000e-003	16.5797
Unmitigated	15.4370	0.0338	1.0000e-003	16.5797

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.02039 / 0	5.0293	0.0334	8.5000e-004	6.1186
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.4370**	**0.0338**	**1.0000e-003**	**16.5797**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.02039 / 0	5.0293	0.0334	8.5000e-004	6.1186
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.4370**	**0.0338**	**1.0000e-003**	**16.5797**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.1506	1.4864	0.0000	62.3095
Unmitigated	25.1506	1.4864	0.0000	62.3095

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	123.9	25.1506	1.4864	0.0000	62.3095
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.1506**	**1.4864**	**0.0000**	**62.3095**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	123.9	25.1506	1.4864	0.0000	62.3095
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.1506**	**1.4864**	**0.0000**	**62.3095**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - Anticipated

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	519.91	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - As of 2015 SDG&E has already achieved 2020 RPS goals. Energy intensity factor revised to account for 35.2 percent renewables procurement.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With annual attendance of 306,800 the project will generate 193,957 trips per year.

Area Coating - SDAPCD Rule 67.0

Energy Use - Project energy use is 132,678 kWh and 176,405 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Project would use 816,315 gallons per year (indoor use). Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Project would generate 46.5 tons.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	6.68
tblEnergyUse	NT24NG	7.25	8.89
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot
tblGrading	AcresOfGrading	202.50	10.80

tblLandUse	LotAcreage	6.38	4.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	519.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	0.55	46.50
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	26.80
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	26.80
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	26.80
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	816,315.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.2858	0.1217	0.4074	0.1031	0.1126	0.2157	0.0000	315.7336	315.7336	0.0751	0.0000	317.6101
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7863	562.7863	0.0777	0.0000	564.7282
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.2858**	**0.1217**	**0.4074**	**0.1031**	**0.1128**	**0.2157**	**0.0000**	**562.7863**	**562.7863**	**0.0777**	**0.0000**	**564.7282**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2432	2.9834	1.6920	3.3700e-003	0.1604	0.1217	0.2821	0.0546	0.1126	0.1672	0.0000	315.7333	315.7333	0.0751	0.0000	317.6098
2018	0.4533	3.0860	2.0054	6.0600e-003	0.1260	0.1182	0.2442	0.0342	0.1128	0.1470	0.0000	562.7860	562.7860	0.0777	0.0000	564.7279
Maximum	**0.4533**	**3.0860**	**2.0054**	**6.0600e-003**	**0.1604**	**0.1217**	**0.2821**	**0.0546**	**0.1128**	**0.1672**	**0.0000**	**562.7860**	**562.7860**	**0.0777**	**0.0000**	**564.7279**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.44**	**0.00**	**19.23**	**35.34**	**0.00**	**13.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

1	**10-1-2017**	**12-31-2017**	2.8419	2.8419
3	**4-1-2018**	**6-30-2018**	0.1326	0.1326
4	**7-1-2018**	**9-30-2018**	0.1073	0.1073
		Highest	2.8419	2.8419

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	56.9590	56.9590	2.1000e-003	5.4000e-004	57.1720
Mobile	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,669.8252	1,669.8252	0.0823	0.0000	1,671.8826
Waste						0.0000	0.0000		0.0000	0.0000	9.4391	0.0000	9.4391	0.5578	0.0000	23.3849
Water						0.0000	0.0000		0.0000	0.0000	0.2590	9.4369	9.6959	0.0270	7.0000e-004	10.5792
Total	**0.4150**	**1.6490**	**4.9311**	**0.0182**	**1.5647**	**0.0185**	**1.5832**	**0.4191**	**0.0174**	**0.4365**	**9.6981**	**1,736.2215**	**1,745.9196**	**0.6692**	**1.2400e-003**	**1,763.0192**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	56.9590	56.9590	2.1000e-003	5.4000e-004	57.1720

Mobile	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,669.8252	1,669.8252	0.0823	0.0000	1,671.8826
Waste						0.0000	0.0000		0.0000	0.0000	9.4391	0.0000	9.4391	0.5578	0.0000	23.3849
Water						0.0000	0.0000		0.0000	0.0000	0.2590	9.4369	9.6959	0.0270	7.0000e-004	10.5792
Total	**0.4150**	**1.6490**	**4.9311**	**0.0182**	**1.5647**	**0.0185**	**1.5832**	**0.4191**	**0.0174**	**0.4365**	**9.6981**	**1,736.2215**	**1,745.9196**	**0.6692**	**1.2400e-003**	**1,763.0192**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	3	8.00	158	0.38

Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	4	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Bore/Drill Rigs	1	8.00	221	0.50
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Dumpers/Tenders	1	8.00	16	0.38
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Pumps	2	8.00	84	0.74
Structural and Site Work	Skid Steer Loaders	2	8.00	65	0.37
Structural and Site Work	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	5.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	10	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	14	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0867**	**7.7900e-003**	**0.0945**	**0.0131**	**7.2900e-003**	**0.0204**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1492	0.0932	1.6000e-004		7.7900e-003	7.7900e-003		7.2900e-003	7.2900e-003	0.0000	14.1124	14.1124	3.6800e-003	0.0000	14.2045
Total	**0.0147**	**0.1492**	**0.0932**	**1.6000e-004**	**0.0390**	**7.7900e-003**	**0.0468**	**5.9100e-003**	**7.2900e-003**	**0.0132**	**0.0000**	**14.1124**	**14.1124**	**3.6800e-003**	**0.0000**	**14.2045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.0000e-004	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1985	0.1985	1.0000e-005	0.0000	0.1987
Total	**3.6000e-003**	**0.1134**	**0.0240**	**2.6000e-004**	**5.6800e-003**	**6.3000e-004**	**6.3100e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**25.6341**	**25.6341**	**2.3200e-003**	**0.0000**	**25.6921**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7316	192.7316	0.0591	0.0000	194.2079
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.1412**	**0.0991**	**0.2403**	**0.0751**	**0.0912**	**0.1663**	**0.0000**	**192.7316**	**192.7316**	**0.0591**	**0.0000**	**194.2079**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	2.2752	1.3392	2.0800e-003		0.0991	0.0991		0.0912	0.0912	0.0000	192.7313	192.7313	0.0591	0.0000	194.2076
Total	**0.1888**	**2.2752**	**1.3392**	**2.0800e-003**	**0.0636**	**0.0991**	**0.1626**	**0.0338**	**0.0912**	**0.1250**	**0.0000**	**192.7313**	**192.7313**	**0.0591**	**0.0000**	**194.2076**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.2056	0.1448	2.6000e-004		0.0126	0.0126		0.0121	0.0121	0.0000	22.9757	22.9757	5.0200e-003	0.0000	23.1012
Total	**0.0233**	**0.2056**	**0.1448**	**2.6000e-004**		**0.0126**	**0.0126**		**0.0121**	**0.0121**	**0.0000**	**22.9757**	**22.9757**	**5.0200e-003**	**0.0000**	**23.1012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871

Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4487	227.4487	0.0490	0.0000	228.6747
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4487**	**227.4487**	**0.0490**	**0.0000**	**228.6747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2034	1.8264	1.4137	2.5800e-003		0.1072	0.1072		0.1024	0.1024	0.0000	227.4484	227.4484	0.0490	0.0000	228.6744
Total	**0.2034**	**1.8264**	**1.4137**	**2.5800e-003**		**0.1072**	**0.1072**		**0.1024**	**0.1024**	**0.0000**	**227.4484**	**227.4484**	**0.0490**	**0.0000**	**228.6744**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1692**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459

Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,669.8252	1,669.8252	0.0823	0.0000	1,671.8826
Unmitigated	0.3065	1.6404	4.9236	0.0182	1.5647	0.0178	1.5826	0.4191	0.0168	0.4358	0.0000	1,669.8252	1,669.8252	0.0823	0.0000	1,671.8826

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	531.98	531.98	531.98	4,151,657	4,151,657
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	531.98	531.98	531.98	4,151,657	4,151,657

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
City Park	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Other Non-Asphalt Surfaces	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Parking Lot	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	47.5421	47.5421	1.9200e-003	3.7000e-004	47.6991
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	47.5421	47.5421	1.9200e-003	3.7000e-004	47.6991
NaturalGas Mitigated	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4169	9.4169	1.8000e-004	1.7000e-004	9.4729
NaturalGas Unmitigated	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4169	9.4169	1.8000e-004	1.7000e-004	9.4729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	176467	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4169	9.4169	1.8000e-004	1.7000e-004	9.4729
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.5000e-004**	**8.6500e-003**	**7.2700e-003**	**5.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.6000e-004**	**6.6000e-004**	**0.0000**	**9.4169**	**9.4169**	**1.8000e-004**	**1.7000e-004**	**9.4729**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	176467	9.5000e-004	8.6500e-003	7.2700e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4169	9.4169	1.8000e-004	1.7000e-004	9.4729
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.5000e-004**	**8.6500e-003**	**7.2700e-003**	**5.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.6000e-004**	**6.6000e-004**	**0.0000**	**9.4169**	**9.4169**	**1.8000e-004**	**1.7000e-004**	**9.4729**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Arena	132598	31.2702	1.2600e-003	2.4000e-004	31.3735
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**47.5421**	**1.9200e-003**	**3.7000e-004**	**47.6991**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	132598	31.2702	1.2600e-003	2.4000e-004	31.3735
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	16.2719	6.6000e-004	1.3000e-004	16.3256
Total		**47.5421**	**1.9200e-003**	**3.7000e-004**	**47.6991**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6959	0.0270	7.0000e-004	10.5792
Unmitigated	9.6959	0.0270	7.0000e-004	10.5792

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.816315 / 0	2.7656	0.0267	6.5000e-004	3.6261

City Park	0 / 2.64509	6.9302	2.8000e-004	5.0000e-005	6.9531
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**9.6959**	**0.0270**	**7.0000e-004**	**10.5792**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.816315 / 0	2.7656	0.0267	6.5000e-004	3.6261
City Park	0 / 2.64509	6.9302	2.8000e-004	5.0000e-005	6.9531
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**9.6959**	**0.0270**	**7.0000e-004**	**10.5792**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	9.4391	0.5578	0.0000	23.3849
Unmitigated	9.4391	0.5578	0.0000	23.3849

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	46.5	9.4391	0.5578	0.0000	23.3849
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**9.4391**	**0.5578**	**0.0000**	**23.3849**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	46.5	9.4391	0.5578	0.0000	23.3849
City Park	0	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**9.4391**	**0.5578**	**0.0000**	**23.3849**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - 2030 BAU

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	780.79	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.011

1.3 User Entered Comments & Non-Default Data

Project Characteristics - BAU condition.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With annual attendance of 523,632 the project will generate 331,036 trips per year.

Vehicle Emission Factors - Alternative CO2 Emission Factors (Non-Pavley) for San Diego County 2030 annual.

Area Coating - SDAPCD Rule 67.0

Energy Use - BAU project energy use inflated to remove effects of Title 24. BAU energy use is 210,902 kWh and 274,503 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Project would use 1,443,483 gallons per year (indoor use). Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Project would generate up to 175.2 tons per year.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	10.62
tblEnergyUse	NT24NG	7.25	13.83
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot

tblGrading	AcresOfGrading	112.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblProjectCharacteristics	CO2IntensityFactor	720.49	780.79
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.011
tblProjectCharacteristics	OperationalYear	2018	2030
tblSolidWaste	SolidWasteGenerationRate	0.55	175.20
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblVehicleEF	LDA	192.33	356.14
tblVehicleEF	LDA	41.79	73.79
tblVehicleEF	LDT1	256.31	413.59
tblVehicleEF	LDT1	56.62	85.81
tblVehicleEF	LDT2	280.32	484.49
tblVehicleEF	LDT2	60.83	100.93
tblVehicleEF	MDV	376.19	619.98
tblVehicleEF	MDV	81.25	128.68
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	45.70
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	45.70
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	45.70
tblVehicleTrips	WD_TR	1.89	0.00

tblWater	IndoorWaterUseRate	8,550,786.83	1,443,483.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1821	2.2287	1.1953	2.6100e-003	0.2862	0.0912	0.3774	0.1032	0.0843	0.1875	0.0000	245.6455	245.6455	0.0548	0.0000	247.0163
2018	0.4003	2.5395	1.5727	4.9800e-003	0.1260	0.0943	0.2203	0.0342	0.0891	0.1233	0.0000	468.2642	468.2642	0.0591	0.0000	469.7416
Maximum	**0.4003**	**2.5395**	**1.5727**	**4.9800e-003**	**0.2862**	**0.0943**	**0.3774**	**0.1032**	**0.0891**	**0.1875**	**0.0000**	**468.2642**	**468.2642**	**0.0591**	**0.0000**	**469.7416**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1821	2.2287	1.1953	2.6100e-003	0.1608	0.0912	0.2520	0.0547	0.0843	0.1390	0.0000	245.6453	245.6453	0.0548	0.0000	247.0161
2018	0.4003	2.5395	1.5727	4.9800e-003	0.1260	0.0943	0.2203	0.0342	0.0891	0.1233	0.0000	468.2640	468.2640	0.0591	0.0000	469.7414
Maximum	**0.4003**	**2.5395**	**1.5727**	**4.9800e-003**	**0.1608**	**0.0943**	**0.2520**	**0.0547**	**0.0891**	**0.1390**	**0.0000**	**468.2640**	**468.2640**	**0.0591**	**0.0000**	**469.7414**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.41**	**0.00**	**20.97**	**35.31**	**0.00**	**15.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-1-2017**	**12-31-2017**	2.1017	2.1017
3	**4-1-2018**	**6-30-2018**	0.1564	0.1564
4	**7-1-2018**	**9-30-2018**	0.1831	0.1831
		Highest	2.1017	2.1017

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	113.7459	113.7459	3.9600e-003	1.6600e-003	114.3411
Mobile	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	3,319.7452	3,319.7452	0.0956	0.0000	3,322.1355
Waste						0.0000	0.0000		0.0000	0.0000	35.5640	0.0000	35.5640	2.1018	0.0000	88.1084
Water						0.0000	0.0000		0.0000	0.0000	0.4580	17.0643	17.5223	0.0477	1.3500e-003	19.1166
Total	**0.4245**	**1.3995**	**5.0403**	**0.0230**	**2.6665**	**0.0153**	**2.6818**	**0.7138**	**0.0143**	**0.7280**	**36.0220**	**3,450.5559**	**3,486.5779**	**2.2490**	**3.0100e-003**	**3,543.7020**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	113.7459	113.7459	3.9600e-003	1.6600e-003	114.3411
Mobile	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	3,319.7452	3,319.7452	0.0956	0.0000	3,322.1355
Waste						0.0000	0.0000		0.0000	0.0000	35.5640	0.0000	35.5640	2.1018	0.0000	88.1084
Water						0.0000	0.0000		0.0000	0.0000	0.4580	17.0643	17.5223	0.0477	1.3500e-003	19.1166
Total	**0.4245**	**1.3995**	**5.0403**	**0.0230**	**2.6665**	**0.0153**	**2.6818**	**0.7138**	**0.0143**	**0.7280**	**36.0220**	**3,450.5559**	**3,486.5779**	**2.2490**	**3.0100e-003**	**3,543.7020**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	2	8.00	367	0.48
Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	8	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	9	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.2137	0.1151	1.9000e-004		0.0110	0.0110		0.0102	0.0102	0.0000	17.8003	17.8003	4.8700e-003	0.0000	17.9219
Total	**0.0205**	**0.2137**	**0.1151**	**1.9000e-004**	**0.0867**	**0.0110**	**0.0976**	**0.0131**	**0.0102**	**0.0233**	**0.0000**	**17.8003**	**17.8003**	**4.8700e-003**	**0.0000**	**17.9219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.9000e-004	2.7600e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5956	0.5956	2.0000e-005	0.0000	0.5961
Total	**3.8300e-003**	**0.1136**	**0.0258**	**2.7000e-004**	**6.0800e-003**	**6.3000e-004**	**6.7200e-003**	**1.6600e-003**	**6.0000e-004**	**2.2700e-003**	**0.0000**	**26.0312**	**26.0312**	**2.3300e-003**	**0.0000**	**26.0896**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.2137	0.1151	1.9000e-004		0.0110	0.0110		0.0102	0.0102	0.0000	17.8002	17.8002	4.8700e-003	0.0000	17.9219
Total	**0.0205**	**0.2137**	**0.1151**	**1.9000e-004**	**0.0390**	**0.0110**	**0.0500**	**5.9100e-003**	**0.0102**	**0.0161**	**0.0000**	**17.8002**	**17.8002**	**4.8700e-003**	**0.0000**	**17.9219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.9000e-004	2.7600e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5956	0.5956	2.0000e-005	0.0000	0.5961
Total	**3.8300e-003**	**0.1136**	**0.0258**	**2.7000e-004**	**6.0800e-003**	**6.3000e-004**	**6.7200e-003**	**1.6600e-003**	**6.0000e-004**	**2.2700e-003**	**0.0000**	**26.0312**	**26.0312**	**2.3300e-003**	**0.0000**	**26.0896**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1293	1.5286	0.8726	1.4000e-003		0.0691	0.0691		0.0636	0.0636	0.0000	129.5096	129.5096	0.0397	0.0000	130.5017

Total	**0.1293**	**1.5286**	**0.8726**	**1.4000e-003**	**0.1412**	**0.0691**	**0.2104**	**0.0751**	**0.0636**	**0.1387**	**0.0000**	**129.5096**	**129.5096**	**0.0397**	**0.0000**	**130.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1293	1.5286	0.8726	1.4000e-003		0.0691	0.0691		0.0636	0.0636	0.0000	129.5095	129.5095	0.0397	0.0000	130.5015
Total	**0.1293**	**1.5286**	**0.8726**	**1.4000e-003**	**0.0636**	**0.0691**	**0.1327**	**0.0338**	**0.0636**	**0.0974**	**0.0000**	**129.5095**	**129.5095**	**0.0397**	**0.0000**	**130.5015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1328	0.0909	1.3000e-004		8.9400e-003	8.9400e-003		8.4000e-003	8.4000e-003	0.0000	12.0246	12.0246	2.9600e-003	0.0000	12.0987
Total	**0.0156**	**0.1328**	**0.0909**	**1.3000e-004**		**8.9400e-003**	**8.9400e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**12.0246**	**12.0246**	**2.9600e-003**	**0.0000**	**12.0987**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1328	0.0909	1.3000e-004		8.9400e-003	8.9400e-003		8.4000e-003	8.4000e-003	0.0000	12.0246	12.0246	2.9600e-003	0.0000	12.0987
Total	**0.0156**	**0.1328**	**0.0909**	**1.3000e-004**		**8.9400e-003**	**8.9400e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**12.0246**	**12.0246**	**2.9600e-003**	**0.0000**	**12.0987**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1340	1.1695	0.8790	1.3500e-003		0.0750	0.0750		0.0705	0.0705	0.0000	118.8836	118.8836	0.0291	0.0000	119.6118
Total	**0.1340**	**1.1695**	**0.8790**	**1.3500e-003**		**0.0750**	**0.0750**		**0.0705**	**0.0705**	**0.0000**	**118.8836**	**118.8836**	**0.0291**	**0.0000**	**119.6118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1340	1.1695	0.8790	1.3500e-003		0.0750	0.0750		0.0705	0.0705	0.0000	118.8835	118.8835	0.0291	0.0000	119.6116
Total	**0.1340**	**1.1695**	**0.8790**	**1.3500e-003**		**0.0750**	**0.0750**		**0.0705**	**0.0705**	**0.0000**	**118.8835**	**118.8835**	**0.0291**	**0.0000**	**119.6116**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868

Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0164	0.1103	0.1020	1.6000e-004		8.2800e-003	8.2800e-003		8.2800e-003	8.2800e-003	0.0000	14.0429	14.0429	1.3300e-003	0.0000	14.0763
Total	**0.1856**	**0.1103**	**0.1020**	**1.6000e-004**		**8.2800e-003**	**8.2800e-003**		**8.2800e-003**	**8.2800e-003**	**0.0000**	**14.0429**	**14.0429**	**1.3300e-003**	**0.0000**	**14.0763**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0164	0.1103	0.1020	1.6000e-004		8.2800e-003	8.2800e-003		8.2800e-003	8.2800e-003	0.0000	14.0429	14.0429	1.3300e-003	0.0000	14.0763
Total	**0.1856**	**0.1103**	**0.1020**	**1.6000e-004**		**8.2800e-003**	**8.2800e-003**		**8.2800e-003**	**8.2800e-003**	**0.0000**	**14.0429**	**14.0429**	**1.3300e-003**	**0.0000**	**14.0763**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	3,319.7452	3,319.7452	0.0956	0.0000	3,322.1355
Unmitigated	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	3,319.7452	3,319.7452	0.0956	0.0000	3,322.1355

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	907.15	907.15	907.15	7,079,505	7,079,505
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	907.15	907.15	907.15	7,079,505	7,079,505

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Other Non-Asphalt Surfaces	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Parking Lot	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	99.0962	99.0962	3.6800e-003	1.4000e-003	99.6043
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	99.0962	99.0962	3.6800e-003	1.4000e-003	99.6043
NaturalGas Mitigated	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
NaturalGas Unmitigated	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	274526	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4800e-003**	**0.0135**	**0.0113**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6497**	**14.6497**	**2.8000e-004**	**2.7000e-004**	**14.7368**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	274526	1.4800e-003	0.0135	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6497	14.6497	2.8000e-004	2.7000e-004	14.7368
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4800e-003**	**0.0135**	**0.0113**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6497**	**14.6497**	**2.8000e-004**	**2.7000e-004**	**14.7368**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Arena	210807	74.6595	2.7700e-003	1.0500e-003	75.0423
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**99.0962**	**3.6800e-003**	**1.3900e-003**	**99.6043**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	210807	74.6595	2.7700e-003	1.0500e-003	75.0423
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	24.4367	9.1000e-004	3.4000e-004	24.5620
Total		**99.0962**	**3.6800e-003**	**1.3900e-003**	**99.6043**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.5223	0.0477	1.3500e-003	19.1166
Unmitigated	17.5223	0.0477	1.3500e-003	19.1166

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.44348 / 0	7.1146	0.0473	1.2000e-003	8.6556
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.5223**	**0.0477**	**1.3500e-003**	**19.1167**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.44348 / 0	7.1146	0.0473	1.2000e-003	8.6556
City Park	0 / 2.64509	10.4077	3.9000e-004	1.5000e-004	10.4611
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**17.5223**	**0.0477**	**1.3500e-003**	**19.1167**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.5640	2.1018	0.0000	88.1084
Unmitigated	35.5640	2.1018	0.0000	88.1084

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	175.2	35.5640	2.1018	0.0000	88.1084
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**35.5640**	**2.1018**	**0.0000**	**88.1084**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	175.2	35.5640	2.1018	0.0000	88.1084
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**35.5640**	**2.1018**	**0.0000**	**88.1084**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMPS and Permanent Symphony - 2030

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.54	Acre	2.54	110,642.40	0
Parking Lot	1.80	Acre	1.80	78,408.00	0
Arena	19.85	1000sqft	4.24	19,850.00	0
City Park	2.22	Acre	2.22	96,703.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	401.16	**CH4 Intensity (lb/MWhr)**	0.016	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E intensity factors represent a 10% procurement of renewables (2010). SDG&E is modeled with minimum requirement, 50%. The default intensity factors were reduced by approximately 25% percent.

Land Use - 1.50 acres walkways+1.04 acres baseketball = 2.54 acres, 1.80 acres parking, 2.22 acres lawn, 16.44 ksf building footprint+syn turf+pavers+DG+misc. = 4.24 acres.

Construction Phase - 8 months total construction begining in October 2017, with 30 days mass grading, 15 days fine grading, and 10 days paving.

Off-road Equipment - Modified based on client data

Trips and VMT - 32 round trips per day during demolition, Seven round trips per day during grading (equipment in and out), 25 deliveries per day (roundtrip) during construction.

Architectural Coating - SDAPCD Rule 67.0

Vehicle Trips - Based on project Traffic Impact Report. With annual attendance of 523,632 the project will generate 331,036 trips per year.

Area Coating - SDAPCD Rule 67.0

Energy Use - Project energy use is 187,691 kWh and 249,549 BTU. Attributed to nontitle 24 energy use categories.

Water And Wastewater - Project would use 1,154,787 gallons per year (indoor use). Green lawns would continue to use water at a standard rate (outdoor use).

Solid Waste - Project would generate up to 65.7 tons per year.

Construction Off-road Equipment Mitigation - Project construction equipment list includes a water truck. Minimum watering schedule (twice per day) was assumed. GHG-9 required equipment applied.

Area Mitigation - GHG-5 equipment requirements applied.

Energy Mitigation - GHG-3 required solar panels applied.

Water Mitigation - GHG-6 required low flow indoor water fixtures applied. GHG-7 required drougt-tolerant landscaping applied.

Waste Mitigation - GHG-8 solid waste recycling program applied.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	110.00
tblConstructionPhase	NumDays	300.00	110.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	9.46
tblEnergyUse	NT24NG	7.25	12.57
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	Arena
tblFleetMix	FleetMixLandUseSubType	Parking Lot	City Park
tblFleetMix	FleetMixLandUseSubType	Arena	Other Non-Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	City Park	Parking Lot

tblGrading	AcresOfGrading	112.50	10.80
tblLandUse	LotAcreage	6.38	4.24
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.016
tblProjectCharacteristics	CO2IntensityFactor	720.49	401.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblProjectCharacteristics	OperationalYear	2018	2030
tblSolidWaste	SolidWasteGenerationRate	0.55	65.70
tblSolidWaste	SolidWasteGenerationRate	0.19	0.00
tblTripsAndVMT	HaulingTripNumber	791.00	640.00
tblTripsAndVMT	HaulingTripNumber	0.00	630.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,500.00
tblVehicleTrips	CC_TL	7.30	21.44
tblVehicleTrips	CNW_TL	7.30	21.44
tblVehicleTrips	CW_TL	9.50	21.44
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	10.71	45.70
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	10.71	45.70
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	10.71	45.70
tblVehicleTrips	WD_TR	1.89	0.00
tblWater	IndoorWaterUseRate	8,550,786.83	1,154,787.00
tblWater	OutdoorWaterUseRate	545,794.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1821	2.2287	1.1953	2.6100e-003	0.2862	0.0912	0.3774	0.1032	0.0843	0.1875	0.0000	245.6455	245.6455	0.0548	0.0000	247.0163
2018	0.4003	2.5395	1.5727	4.9800e-003	0.1260	0.0943	0.2203	0.0342	0.0891	0.1233	0.0000	468.2642	468.2642	0.0591	0.0000	469.7416
Maximum	**0.4003**	**2.5395**	**1.5727**	**4.9800e-003**	**0.2862**	**0.0943**	**0.3774**	**0.1032**	**0.0891**	**0.1875**	**0.0000**	**468.2642**	**468.2642**	**0.0591**	**0.0000**	**469.7416**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0377	0.4489	1.0629	2.6100e-003	0.1608	4.9400e-003	0.1658	0.0547	4.8500e-003	0.0596	0.0000	245.6453	245.6453	0.0548	0.0000	247.0161
2018	0.2638	1.3305	1.5716	4.9800e-003	0.1260	0.0104	0.1363	0.0342	9.9200e-003	0.0441	0.0000	468.2640	468.2640	0.0591	0.0000	469.7414
Maximum	**0.2638**	**1.3305**	**1.5716**	**4.9800e-003**	**0.1608**	**0.0104**	**0.1658**	**0.0547**	**9.9200e-003**	**0.0596**	**0.0000**	**468.2640**	**468.2640**	**0.0591**	**0.0000**	**469.7414**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**48.23**	**62.68**	**4.82**	**0.00**	**30.41**	**91.76**	**49.45**	**35.31**	**91.48**	**66.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
1	**10-1-2017**	**12-31-2017**	2.1017	0.3290
3	**4-1-2018**	**6-30-2018**	0.1564	0.0821
4	**7-1-2018**	**9-30-2018**	0.1831	0.1126
		Highest	2.1017	0.3290

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Energy	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	60.0395	60.0395	2.1200e-003	5.9000e-004	60.2694
Mobile	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	2,129.1057	2,129.1057	0.0956	0.0000	2,131.4960
Waste						0.0000	0.0000		0.0000	0.0000	13.3365	0.0000	13.3365	0.7882	0.0000	33.0406
Water						0.0000	0.0000		0.0000	0.0000	0.3664	8.0834	8.4498	0.0380	9.5000e-004	9.6814
Total	**0.4244**	**1.3982**	**5.0393**	**0.0230**	**2.6665**	**0.0152**	**2.6817**	**0.7138**	**0.0142**	**0.7280**	**13.7029**	**2,197.2292**	**2,210.9320**	**0.9238**	**1.5400e-003**	**2,234.4879**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1076	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	25.8867	25.8867	7.6000e-004	3.4000e-004	26.0064
Mobile	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	2,129.1057	2,129.1057	0.0956	0.0000	2,131.4960
Waste						0.0000	0.0000		0.0000	0.0000	6.6683	0.0000	6.6683	0.3941	0.0000	16.5203
Water						0.0000	0.0000		0.0000	0.0000	0.2931	6.1994	6.4925	0.0304	7.6000e-004	7.4769

Total	**0.4244**	**1.3982**	**5.0392**	**0.0230**	**2.6665**	**0.0152**	**2.6817**	**0.7138**	**0.0142**	**0.7280**	**6.9613**	**2,161.1920**	**2,168.1534**	**0.5208**	**1.1000e-003**	**2,181.4998**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**49.20**	**1.64**	**1.93**	**43.63**	**28.57**	**2.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2017	10/13/2017	5	10	
2	Mass and Fine Grading	Grading	10/14/2017	12/15/2017	5	45	
3	Structural and Site Work	Building Construction	12/16/2017	5/18/2018	5	110	
4	Paving	Paving	5/19/2018	6/1/2018	5	10	
5	Architectural Coating	Architectural Coating	6/2/2018	11/2/2018	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.34

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,775; Non-Residential Outdoor: 9,925; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Mass and Fine Grading	Excavators	2	8.00	158	0.38
Mass and Fine Grading	Graders	1	8.00	187	0.41
Mass and Fine Grading	Rubber Tired Dozers	1	8.00	247	0.40
Mass and Fine Grading	Scrapers	2	8.00	367	0.48

Mass and Fine Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Structural and Site Work	Cranes	1	7.00	231	0.29
Structural and Site Work	Forklifts	3	8.00	89	0.20
Structural and Site Work	Generator Sets	1	8.00	84	0.74
Structural and Site Work	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Structural and Site Work	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	640.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mass and Fine Grading	8	20.00	0.00	630.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Structural and Site Work	9	128.00	50.00	5,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.2137	0.1151	1.9000e-004		0.0110	0.0110		0.0102	0.0102	0.0000	17.8003	17.8003	4.8700e-003	0.0000	17.9219
Total	**0.0205**	**0.2137**	**0.1151**	**1.9000e-004**	**0.0867**	**0.0110**	**0.0976**	**0.0131**	**0.0102**	**0.0233**	**0.0000**	**17.8003**	**17.8003**	**4.8700e-003**	**0.0000**	**17.9219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.9000e-004	2.7600e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5956	0.5956	2.0000e-005	0.0000	0.5961
Total	**3.8300e-003**	**0.1136**	**0.0258**	**2.7000e-004**	**6.0800e-003**	**6.3000e-004**	**6.7200e-003**	**1.6600e-003**	**6.0000e-004**	**2.2700e-003**	**0.0000**	**26.0312**	**26.0312**	**2.3300e-003**	**0.0000**	**26.0896**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0390	0.0000	0.0390	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0100	0.1164	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	17.8002	17.8002	4.8700e-003	0.0000	17.9219

Total	**2.3100e-003**	**0.0100**	**0.1164**	**1.9000e-004**	**0.0390**	**3.1000e-004**	**0.0393**	**5.9100e-003**	**3.1000e-004**	**6.2200e-003**	**0.0000**	**17.8002**	**17.8002**	**4.8700e-003**	**0.0000**	**17.9219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4800e-003	0.1133	0.0230	2.6000e-004	5.4800e-003	6.3000e-004	6.1100e-003	1.5000e-003	6.0000e-004	2.1100e-003	0.0000	25.4356	25.4356	2.3100e-003	0.0000	25.4934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.9000e-004	2.7600e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5956	0.5956	2.0000e-005	0.0000	0.5961
Total	**3.8300e-003**	**0.1136**	**0.0258**	**2.7000e-004**	**6.0800e-003**	**6.3000e-004**	**6.7200e-003**	**1.6600e-003**	**6.0000e-004**	**2.2700e-003**	**0.0000**	**26.0312**	**26.0312**	**2.3300e-003**	**0.0000**	**26.0896**

3.3 Mass and Fine Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1412	0.0000	0.1412	0.0751	0.0000	0.0751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1293	1.5286	0.8726	1.4000e-003		0.0691	0.0691		0.0636	0.0636	0.0000	129.5096	129.5096	0.0397	0.0000	130.5017
Total	**0.1293**	**1.5286**	**0.8726**	**1.4000e-003**	**0.1412**	**0.0691**	**0.2104**	**0.0751**	**0.0636**	**0.1387**	**0.0000**	**129.5096**	**129.5096**	**0.0397**	**0.0000**	**130.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0636	0.0000	0.0636	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.0743	0.7425	1.4000e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	129.5095	129.5095	0.0397	0.0000	130.5015
Total	**0.0171**	**0.0743**	**0.7425**	**1.4000e-003**	**0.0636**	**2.2800e-003**	**0.0658**	**0.0338**	**2.2800e-003**	**0.0361**	**0.0000**	**129.5095**	**129.5095**	**0.0397**	**0.0000**	**130.5015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	3.4300e-003	0.1115	0.0227	2.5000e-004	5.3900e-003	6.2000e-004	6.0100e-003	1.4800e-003	5.9000e-004	2.0700e-003	0.0000	25.0382	25.0382	2.2800e-003	0.0000	25.0951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.7200e-003	0.0165	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.5735	3.5735	1.3000e-004	0.0000	3.5769
Total	**5.5600e-003**	**0.1132**	**0.0392**	**2.9000e-004**	**9.0000e-003**	**6.5000e-004**	**9.6500e-003**	**2.4400e-003**	**6.2000e-004**	**3.0500e-003**	**0.0000**	**28.6117**	**28.6117**	**2.4100e-003**	**0.0000**	**28.6719**

3.4 Structural and Site Work - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1328	0.0909	1.3000e-004		8.9400e-003	8.9400e-003		8.4000e-003	8.4000e-003	0.0000	12.0246	12.0246	2.9600e-003	0.0000	12.0987
Total	**0.0156**	**0.1328**	**0.0909**	**1.3000e-004**		**8.9400e-003**	**8.9400e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**12.0246**	**12.0246**	**2.9600e-003**	**0.0000**	**12.0987**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6400e-003	0.0112	0.0873	1.3000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	12.0246	12.0246	2.9600e-003	0.0000	12.0987
Total	**1.6400e-003**	**0.0112**	**0.0873**	**1.3000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**12.0246**	**12.0246**	**2.9600e-003**	**0.0000**	**12.0987**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7200e-003	0.0885	0.0180	2.0000e-004	0.0364	4.9000e-004	0.0369	9.0700e-003	4.7000e-004	9.5400e-003	0.0000	19.8716	19.8716	1.8100e-003	0.0000	19.9167
Vendor	1.5100e-003	0.0358	0.0102	7.0000e-005	1.6600e-003	3.3000e-004	1.9900e-003	4.8000e-004	3.2000e-004	8.0000e-004	0.0000	6.7143	6.7143	5.8000e-004	0.0000	6.7287
Worker	3.0200e-003	2.4500e-003	0.0235	6.0000e-005	5.1300e-003	4.0000e-005	5.1700e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	5.0823	5.0823	1.9000e-004	0.0000	5.0871
Total	**7.2500e-003**	**0.1267**	**0.0517**	**3.3000e-004**	**0.0432**	**8.6000e-004**	**0.0441**	**0.0109**	**8.3000e-004**	**0.0117**	**0.0000**	**31.6681**	**31.6681**	**2.5800e-003**	**0.0000**	**31.7325**

3.4 Structural and Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1340	1.1695	0.8790	1.3500e-003		0.0750	0.0750		0.0705	0.0705	0.0000	118.8836	118.8836	0.0291	0.0000	119.6118
Total	**0.1340**	**1.1695**	**0.8790**	**1.3500e-003**		**0.0750**	**0.0750**		**0.0705**	**0.0705**	**0.0000**	**118.8836**	**118.8836**	**0.0291**	**0.0000**	**119.6118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0164	0.1117	0.8730	1.3500e-003		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	118.8835	118.8835	0.0291	0.0000	119.6116

Total	**0.0164**	**0.1117**	**0.8730**	**1.3500e-003**		**2.0400e-003**	**2.0400e-003**		**2.0400e-003**	**2.0400e-003**	**0.0000**	**118.8835**	**118.8835**	**0.0291**	**0.0000**	**119.6116**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0232	0.8116	0.1693	2.0000e-003	0.0460	3.1600e-003	0.0492	0.0125	3.0200e-003	0.0156	0.0000	197.0083	197.0083	0.0178	0.0000	197.4527
Vendor	0.0131	0.3337	0.0918	6.9000e-004	0.0166	2.5900e-003	0.0192	4.7900e-003	2.4800e-003	7.2700e-003	0.0000	66.9147	66.9147	5.5100e-003	0.0000	67.0526
Worker	0.0274	0.0217	0.2077	5.5000e-004	0.0513	3.8000e-004	0.0517	0.0136	3.5000e-004	0.0140	0.0000	49.3936	49.3936	1.7000e-003	0.0000	49.4362
Total	**0.0636**	**1.1670**	**0.4689**	**3.2400e-003**	**0.1139**	**6.1300e-003**	**0.1200**	**0.0310**	**5.8500e-003**	**0.0368**	**0.0000**	**313.3166**	**313.3166**	**0.0250**	**0.0000**	**313.9415**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2200e-003	0.0876	0.0740	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0876**	**0.0740**	**1.1000e-004**		**4.7800e-003**	**4.7800e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0900e-003	0.0397	0.0801	1.1000e-004		1.8700e-003	1.8700e-003		1.7300e-003	1.7300e-003	0.0000	10.4058	10.4058	3.2400e-003	0.0000	10.4868
Paving	2.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4500e-003**	**0.0397**	**0.0801**	**1.1000e-004**		**1.8700e-003**	**1.8700e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**10.4058**	**10.4058**	**3.2400e-003**	**0.0000**	**10.4868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.4300e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5788	0.5788	2.0000e-005	0.0000	0.5793
Total	**3.2000e-004**	**2.5000e-004**	**2.4300e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5788**	**0.5788**	**2.0000e-005**	**0.0000**	**0.5793**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0164	0.1103	0.1020	1.6000e-004		8.2800e-003	8.2800e-003		8.2800e-003	8.2800e-003	0.0000	14.0429	14.0429	1.3300e-003	0.0000	14.0763
Total	**0.1856**	**0.1103**	**0.1020**	**1.6000e-004**		**8.2800e-003**	**8.2800e-003**		**8.2800e-003**	**8.2800e-003**	**0.0000**	**14.0429**	**14.0429**	**1.3300e-003**	**0.0000**	**14.0763**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	7.0800e-003	0.1008	1.6000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	14.0429	14.0429	1.3300e-003	0.0000	14.0763
Total	**0.1709**	**7.0800e-003**	**0.1008**	**1.6000e-004**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**14.0429**	**14.0429**	**1.3300e-003**	**0.0000**	**14.0763**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1100e-003	4.8400e-003	0.0464	1.2000e-004	0.0115	8.0000e-005	0.0116	3.0500e-003	8.0000e-005	3.1300e-003	0.0000	11.0364	11.0364	3.8000e-004	0.0000	11.0459
Total	**6.1100e-003**	**4.8400e-003**	**0.0464**	**1.2000e-004**	**0.0115**	**8.0000e-005**	**0.0116**	**3.0500e-003**	**8.0000e-005**	**3.1300e-003**	**0.0000**	**11.0364**	**11.0364**	**3.8000e-004**	**0.0000**	**11.0459**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	2,129.1057	2,129.1057	0.0956	0.0000	2,131.4960
Unmitigated	0.3155	1.3860	5.0288	0.0229	2.6665	0.0143	2.6808	0.7138	0.0133	0.7270	0.0000	2,129.1057	2,129.1057	0.0956	0.0000	2,131.4960

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	907.15	907.15	907.15	7,079,505	7,079,505
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	907.15	907.15	907.15	7,079,505	7,079,505

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	21.44	21.44	21.44	0.00	81.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

Other Non-Asphalt Surfaces	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Parking Lot	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	12.5717	12.5717	5.0000e-004	9.0000e-005	12.6122
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.7245	46.7245	1.8600e-003	3.5000e-004	46.8752
NaturalGas Mitigated	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942
NaturalGas Unmitigated	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	249515	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.3500e-003**	**0.0122**	**0.0103**	**7.0000e-005**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**13.3150**	**13.3150**	**2.6000e-004**	**2.4000e-004**	**13.3942**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	249515	1.3500e-003	0.0122	0.0103	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.3150	13.3150	2.6000e-004	2.4000e-004	13.3942
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.3500e-003**	**0.0122**	**0.0103**	**7.0000e-005**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**13.3150**	**13.3150**	**2.6000e-004**	**2.4000e-004**	**13.3942**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	187781	34.1692	1.3600e-003	2.6000e-004	34.2794
City Park	0	0.0000	0.0000	0.0000	0.0000

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	68999	12.5553	5.0000e-004	9.0000e-005	12.5958
Total		**46.7245**	**1.8600e-003**	**3.5000e-004**	**46.8752**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	140858	25.6310	1.0200e-003	1.9000e-004	25.7137
City Park	-46922.8	-8.5382	-0.0003	-0.0001	-8.5658
Other Non-Asphalt Surfaces	-46922.8	-8.5382	-0.0003	-0.0001	-8.5658
Parking Lot	22076.3	4.0171	1.6000e-004	3.0000e-005	4.0300
Total		**12.5717**	**5.0000e-004**	**1.0000e-004**	**12.6122**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1076	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	0.1076	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1076**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.1076**	**0.0000**	**1.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.4925	0.0304	7.6000e-004	7.4769
Unmitigated	8.4498	0.0380	9.5000e-004	9.6814

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.15479 / 0	3.1025	0.0377	9.1000e-004	4.3168
City Park	0 / 2.64509	5.3473	2.1000e-004	4.0000e-005	5.3646
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**8.4498**	**0.0380**	**9.5000e-004**	**9.6814**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.92383 / 0	2.4820	0.0302	7.3000e-004	3.4534
City Park	0 / 1.98382	4.0105	1.6000e-004	3.0000e-005	4.0234
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.4925**	**0.0304**	**7.6000e-004**	**7.4769**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.6683	0.3941	0.0000	16.5203

Unmitigated	13.3365	0.7882	0.0000	33.0406

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	65.7	13.3365	0.7882	0.0000	33.0406
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.3365**	**0.7882**	**0.0000**	**33.0406**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	32.85	6.6683	0.3941	0.0000	16.5203
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**6.6683**	**0.3941**	**0.0000**	**16.5203**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

(FOR LAND DISTURBANCES OF GREATER THAN ONE ACRE OR EQUAL TO ONE ACRE)

PROJECT NAME: _____BAYSIDE PERFORMANCE PARK_____
_____ENHANCEMENT PROJECT_____
CONTRACTOR NAME: _____TBD_____
RISK LEVEL: _____1_____
WDID NO.: _____

DATE: _____OCTOBER 2016_____

Prepared for:

Port of San Diego
3165 Pacific Highway
San Diego, CA 92101-1128

Note: This Construction SWPPP must be maintained at the site and available for review upon request by the Port of San Diego and the Regional Water Quality Control Board.

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Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

"This Stormwater Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Orders No. 2009-009-DWQ as amended by Order 2010-0014-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

QSD Signature	Date
Victor Tirado, PE	C78086
QSD Name	QSD Certificate Number include certificate in Appendix M
Project Manager, Moffatt & Nichol	
Title and Affiliation	
vtirado@moffattnichol.com	(619) 220-6050 x. 16139
Email	Telephone Number

Amendment Log

Project Name/WDID _____

Include references to section of SWPPP that has been amended, add additional pages as needed.

Amendment No.	**Date**	**Brief Description of Amendment, include section and page number**	**Prepared and Approved By**
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
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			Name: QSD#
			Name: QSD#

Section 1 SWPPP Requirements

1.1 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) was prepared for construction activities at the 10.80 acre-property located at Embarcadero Marina Park South, in the San Diego Unified Port District (District) tidelands within the County of San Diego, CA (project site). The project location is shown on the Vicinity Map included in Appendix B.

This SWPPP is designed to assist the project's compliance with the District's Jurisdictional Runoff Management Program (JRMP), Order No. R9-2013-0001 Municipal Stormwater Permit and with California's General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order No. 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ (NPDES No. CAS000002) issued by the State Water Resources Control Board (SWRCB). This SWPPP has been prepared following the SWPPP Template provided by the District. In accordance with the General Permit, Section XIV, this SWPPP is designed to address the following objectives:

- "Pollutants and their sources, including sources of sediment associated with construction, construction site erosion and other activities associated with construction activity are controlled;
- "Where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- "Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology (BAT/BCT) standard."

Calculations and design details for BMP controls applicable to this project are included in, Appendix A.

1.2 GENERAL PERMIT COVERAGE

The Legally Responsible Party (LRP), San Diego Symphony, has submitted the Permit Registration Documents (PRDs) to the SWRCB Stormwater Multi-Application and Report tracking system (SMARTS). The SWRCB has issued a Waste Discharge Identification (WDID) number as indicated below:

WDID:_____(to be completed upon receipt of WDID)_____

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP is available at the construction site during working hours (see Section 7.5 of CSMP for working hours) while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone. (General Permit Section XIV.C)

The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

1.4 SWPPP AMENDMENTS

The General Permit requires the SWPPP to be revised when:

- There is a General Permit violation. *"This General Permit requires dischargers with NAL exceedances to immediately implement additional BMPs and revise their Stormwater Pollution Prevention Plans (SWPPPs) accordingly to either prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs or NELs." (General Permit Section I Part H No. 57 and 59)*
- When there is a reduction or increase in total disturbed acreage. *"Within 30 days of a reduction or increase in total disturbed acreage, the discharger shall electronically file revisions to the PRDs that include: … SWPPP revisions, as appropriate …" (General Permit Section II Part C)*
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges. *"Within two business days (48 hours) after each qualifying rain event, dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly". (General Permit, Attachment C, D, or E part I.3.G).*

Additionally, the SWPPP shall be revised when:

- There is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- When there is a change in the project duration that changes the project's risk level;
- To identify any new contractor and or subcontractor that will implement a measure of the SWPPP; or
- When deemed necessary by the QSD. The QSD has determined that the changes listed in Table 1.1 can be field determined by the QSP. All other changes shall be made by the QSD as formal amendments to the SWPPP.

The following items shall be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP proposed, if any; and
- The new BMP proposed.

The SWPPP text shall be revised replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be made by a QSD and logged in the Amendment Log on page 2 of the SWPPP. Additionally a SWPPP Amendment Certification shall be completed by the QSD and maintained in Appendix D, for each amendment.

The following changes listed in Table 1.1 have been designated by the QSD as "to be field determined" and constitute minor changes that the QSP may implement based on field conditions, and do not required a SWPPP amendment. The SWPPP progress map shall be updated to reflect field changes.

Table 1.1 List of Changes to be Field Determined

Changes for field location or determination by QSP(1)	**Check changes that can be field located or field determined by QSP**
Increase quantity of an erosion or sediment control measure	X
Relocate/Add stockpiles or stored materials	X
Relocate or add toilets	X
Relocate vehicle storage and/or fueling locations	
Relocate areas for waste storage	
Relocate water storage and/or water transfer location	X
Changes to access points (entrance/exits)	
Change type of erosion or sediment control measure	X
Changes to location of erosion or sediment control	X
Minor changes to schedule or phases	X
Changes in construction materials	X
(1) Any field changes not identified for field location or field determination by QSP must be approved by QSD	

1.5 RETENTION OF RECORDS

The contractor must provide a copy of the SWPPP, all required PRDs, inspection reports, compliance certifications and annual reports, non-compliance reports, and training records to the LRP upon project completion. The LRP will retain this information for at least 3 years from the date that the site is finally stabilized. The contractor must retain a copy of the SWPPP and inspection reports at the construction site from the date of project initiation to the date coverage under the General Permit are terminated.

1.6 REQUIRED NON-COMPLIANCE REPORTING

Corrective measures will be implemented immediately following pollutant laden discharges (e.g. sediment, concrete) or following written notice of non-compliance from the San Diego Regional Water Quality Control Board (RWQCB). The District's Planning and Green Port (PGP) requires that any instances of noncompliance with the requirements of the General Permit must be reported to them within 48 hours of detection of the noncompliance. Discharges and corrective actions will be documented on the Effluent Sampling Form in Appendix J.

The report to the District will contain the following items:

- The date, time, location, nature of operation and type of unauthorized discharge.
- The cause or nature of the notice or order.
- The control measures (BMPs) deployed before the discharge, or prior to receiving notice or order.

- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.
- San Diego RWQCB requirements TBD

1.7 ANNUAL REPORTING

The General Permit requires all projects that are enrolled for more than one continuous three-month period to submit information and annually certify that their site is in compliance with these requirements. The primary purpose of this requirement is to provide information needed for overall program evaluation and pubic information.

An annual report, for the reporting year of July 1 – June 30, must be completed, by September 1 of each year until a NOT has been filed in the SWRCB's SMARTS database. The QSP is responsible for submitting the annual report information to the LRP by August 1 of each year. The LRP will review the report information for completeness and accuracy and upload the required information to the SWRCB's SMARTS database by September 1 of each year. Use the Annual Report form in Appendix E to prepare the Annual Report submittal to the LRP.

1.8 CHANGES TO PERMIT COVERAGE

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when: a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, shall be documented in the Amendment Log on page 2 of this SWPPP. QSD certification of SWPPP amendments are to be kept in Appendix D. Updated PRDs submitted electronically via SMARTS can be found in Appendix F.

1.9 PROJECT CLOSE OUT

- A Notice of Termination (NOT) must be submitted electronically by the LRP via SMARTS to terminate coverage under the General Permit. The NOT must include a final Site Map and representative photographs of the project site that demonstrate final stabilization has been achieved. The NOT shall be submitted within 90 days of completion of construction. The RWQCB will consider a construction site complete when the conditions of the General Permit, Section II.D have been met.
- The site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity.
- There is no potential for construction related stormwater pollution.
- All elements of the SWPPP have been completed and final stabilization has been reached.
- Construction materials and waste have been properly disposed.
- An Annual Report has been filed for project longer than three (3) months.
- The site is in compliance with all local stormwater management requirements.

Section 2 Project Information

2.1 PROJECT AND SITE DESCRIPTION

2.1.1 Site Description

The Bayside Performance Park Enhancement Project project site comprises approximately 10.80 acres and is located at Embarcadero Marina Park South, in San Diego, California. The project site is located approximately 1,250 feet southwest of Harbor Drive and 2,600 feet southeast of Seaport Village in Downtown San Diego. The project site is bordered to the west and south by the San Diego Bay. The project is located at 32.7026° N and 117.1643° W and is identified on the Overall Site Plan in Appendix B.

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the project site includes a parking lot, fishing pier, basketball courts, gazebos, and a concession stand. The project site was previously developed with a land use designation of park/plaza. There are no known historical contamination sources at this site.

2.1.3 Existing Drainage

The project site is divided into three separate areas: a western park, a central parking lot, and an eastern park. The western park consists of a large gently sloped, park area surrounded by a pedestrian path that serves as both a walking path and an exercise trail. The elevation of the western park ranges from +16' NAVD88 in the center to +10' NAVD88 near the western edge of the park. East of the center parking lot connecting the park to Marina Park Way is another gently sloped park with elevations ranging from +14' NAVD88 to +10' NAVD88. The concrete basketball court has a rough elevation of +12' NAVD88. Surface drainage at the site generally flows radially from the center of the western park area towards the western and easternmost low points. The existing drainage system at the parking lot does not appear to be fitted with backflow devices at the outfalls. Stormwater is conveyed through curb inlets, which is ultimately directed to the San Diego Bay. Stormwater discharges, from the site, are considered direct discharges, as defined by the SWRCB into the San Diego Bay. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on the Existing Drainage Area in Appendix B.

2.1.4 Historic Sources of Contamination

This site has no known historical sources of contamination. However, further reasearch will be done by the Environmental consultant in order to confirm the this assesment.

2.1.5 Geology and Groundwater

The site is underlain by hydraulically placed man-made land and is classified in the San Diego County Hydrology Manual as "Undetermined". Given that the project site is within San Diego Bay, the groundwater elevation is tidal driven and varies depending on the tides.

2.1.6 Project Description

Project grading will occur on approximately 10.80 acres of the project, which comprises 100 percent of the total area. The limits of grading are shown on the Grading Plans, sheets 1-4, for the project in Appendix B. Grading will include both cut and fill activities, with the total graded material estimated to be 6,000 cubic yards. Graded materials are anticipated to be balanced onsite. Soil will be stockpiled within the footprint of the construction site. Construction activities will not be phased.

2.1.7 Developed Condition

Post construction surface drainage will be directed to the localized low points as surface flow and/or sheet flow through stormwater conveyance systems. These flows will be collected in area drains and catch basins where the runoff will be treated before it is discharged to the San Diego Bay through storm drain system outfalls.

The western park would consist of the performance venue, underground restrooms and offices, as well as the surrounding pedestrian path. The western park would slope from the restrooms at +21‘ NAVD88 to the stage area at +12‘ NAVD88 and to the perimeter edges of the park. Stormwater would be distributed to the vegetated strip along the pedestrian path and treated by a biofilter at the northeastern edge or by media filters to be ultimately discharged to the San Diego Bay through the stormwater conveyance system. A Permavoid harvesting system would collect water in front of the stage for irrigation of the vegetated strip. The park area to the east of the underground restrooms would drain to the nearest area drain to be treated by the media filter inserts prior to entering the stormwater conveyance system. An additional Permavoid would harvest rainwater to be reused for irrigation of the perimeter vegetated strip.

Post construction drainage patterns and conveyance systems are presented on the Proposed Drainage Management Areas Exhibit in Appendix B.

2.1.8 Construction Quantities

Table 2.1 presents construction site area, % impervious and runoff coefficient, for existing and developed conditions. This information is required to complete site information in the PRDs in SMARTS.

Table 2.1 Construction Site Estimates

Construction site area	10.80	acres
Disturbed Soil Area	10.80	acres
Percent impervious before construction	33.1	%
Runoff coefficient before construction	0.499	
Percent impervious after construction	68.5	%
Runoff coefficient after construction	0.711	

2.2 PERMITS AND GOVERNING DOCUMENTS

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP:

Regional Water Quality Control Board requirements

San Diego Unified Port District USMP

Basin Plan Requirements

Contract Documents

Air Quality Regulations and Permits

Federal Endangered Species Act

National Historic Preservation Act/Requirements of the State Historic Preservation Office

State of California Endangered Species Act

Clean Water Act Section 401 Water Quality Certifications

US Army Corps of Engingers 404 Permits

CA Department of Fish and Game 1600 Streambed Alteration Agreement

California Coastal Commission Permit

2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

There is no anticipated offsite run-on to this construction site because this site is an isolated island in San Diego Bay connected to land only by an access road and a parking lot with a high point along the San Diego Bay boardwak.

2.4 SEDIMENT AND RECEIVING WATER RISK DETERMINATION

A construction site risk assessment has been performed for the project and the resultant risk level is Risk Level 1.

The risk level was determined though the use of the K, LS provided in SMARTS. The risk level is based on project duration, location, proximity to impaired receiving waters and soil conditions. A copy of the Risk Level determination submitted on SMARTS with the PRDs is included in Appendix C.

Table 2.2 summarizes the sediment and receiving water risk factors and document the sources of information used to derive the factors.

Table 2.2 Summary of Sediment Risk

RUSLE Factor	**Value**	**Method for establishing value**
R	26.33	EPA Rainfall Erosivity Factor Calculator for Small Construction Sites
K	0.32	GIS Method
LS	0.41	GIS Method
Total Predicted Sediment Loss (tons/acre)		**3.4545**
Overall Sediment Risk Low Sediment Risk < 15 tons/ acre Medium Sediment Risk >= 15 and < 75 tons/acre High Sediment Risk >= 75 tons/acre		☒ **Low** ☐ **Medium** ☐ **High**

Runoff from the project site discharges directly into the San Diego Bay. The San Diego Bay is currently not listed for sediment impairment and does not have combinded benificial uses of “Cold”, “Spawn” and “Migratory” therefore Receiving Water Risk for the project is currently considered LOW.

Risk Level 1 sites are subject to the narrative effluent limitations specified in the General Permit. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures, and best management practices. This SWPPP has been prepared to address Risk Level 1 requirements (General Permit Attachment C).

2.5 CONSTRUCTION SCHEDULE

The site sediment risk was determined based on construction taking place between September 2017 and May 2018. Modification or extension of the schedule (start and end dates) may affect risk determination and permit requirements. The contractor shall contact the District immediately if the schedule changes and the San Diego Symphony and its QSD will assess potential impacts to the SWPPP. The estimated schedule for planned work can be found in Appendix G.

[Include additional descriptions of significant grading phases and work near drainages or receiving water.]

Table 2.4 Construction Activity Milestones (TBD)

Milestone	**Start Date**	**End Date**
Date PRDs and filing fee submitted to SWRCB.	TBD	
Project covered by General Construction Permit. A construction site is covered by the General Permit upon filing PRDs, fess and receipt of WDID number.	TBD	
Initial ground-breaking (must occur after completion of SWPPP and receipt of WDID).	TBD	
Implement erosion control measures*	TBD	
Implement sediment control measures (perimeter control, stabilized entrance, inlet protection).	TBD	
Grading/excavation/trenching activities.	TBD	
Paving activities.	TBD	
Construction of structures and paved surfaces.	TBD	
Site clean-up.	TBD	
Anticipated construction completion date.	TBD	
Anticipated filing of Notice of Termination (NOT).	TBD	

*Per the District's JRMP, erosion control measures are a required minimum BMP that must be implemented at all inactive areas of a construction site. An area is considered "inactive" if no construction activity including soil disturbing activities such as clearing, grading, disturbances to ground such as stockpiling and excavation, is occurring. An area is also considered inactive if soil disturbing activities had previously occurred but are not scheduled or planned to be re-disturbed for at least 14 days. Disturbed areas of the construction site that will not be re-disturbed will be stabilized by the day after the last disturbance

2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

Appendix H includes a list of construction activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants, other than sediment, to stormwater runoff.

The anticipated activities and associated pollutants are used in Section 3 to select the BMP for the project. Location of anticipated pollutants and associated BMPs are show on the Temporary Erosion Control Plans, sheets EC-1 through EC-3, in Appendix B.

For sampling requirements for non-visible pollutants associated with construction activity refer to Section 7.7.1. For a full and complete list of onsite pollutants, refer to the Material Safety Data Sheets (MSDS), which are retained onsite at the construction trailer.

2.7 IDENTIFICATION OF NON-STORMWATER DISCHARGES

Non-stormwater discharges consist of discharges which do not originate from precipitation events. Per the District's stormwater ordinance, Article 10 all non-stormwater discharges to the stormwater conveyance system that do not have a NPDES permit are considered illicit discharges and subject to enforcement. Discharges from potable water sources are allowable provided the discharge does not cause erosion or carry other pollutants. Building fire suppression systems maintenance discharges will be addressed as an illicit discharge unless BMPs are implemented to prevent pollutants associated with such discharges to the storm water conveyance system. Refer to Section 10.04 of Article 10 for a complete list of illicit discharges.

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the Article 10 or the General Permit and listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

Non-stormwater discharges that are authorized from this project site include the following:

- Water to dust control
- Irrigation of vegetative erosion
- Fire hydrant flushing
- Irrigation of vegetative erosion control measures
- Pipe flushing and testing
- Uncontaminated ground water dewatering
- Other discharges not subject to a separate general NPDES permit adopted by a region

These authorized non-stormwater discharges will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP and will be minimized by the QSP.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- Paving and Grinding
- Irrigation
- Vehicle and Equipment Cleaning
- Vehicle and Equipment Fueling
- Concrete Curing
- Concrete Finishing
- Material Over Water
- Demolition Adjacent to Water
- Material Delivery and Storage
- Material Use
- Stockpile Management

Land Clearing

Steps will be taken, including the implementation of appropriate BMPs, to ensure that unauthorized discharges are eliminated, controlled, disposed, or treated on-site.

Discharges of construction materials and wastes, such as fuel or paint, resulting from dumping, spills, or direct contact with rainwater or stormwater runoff, are also prohibited.

2.8 REQUIRED SITE MAP INFORMATION

The construction project's Site Map(s) showing the project location, surface water boundaries, geographic features, construction site perimeter and general topography and other requirements identified in Attachment B of the General Permit are located in Appendix B. Table 2.5 identifies Map or Sheet Nos. where required elements are illustrated.

Table 2.5 Required Map Information

Included on Map/Plan Sheet No. (1)	Required Element
Vicinity Map	The project's surrounding area (vicinity)
Overall Site Exhibit	Site layout
Proposed Pervious & Impervious Areas Exhibit	Construction site boundaries
Existing and Proposed Drainage Areas Exhibits	Drainage areas
Storm Drain Plans, sheets 1-5	Discharge locations
TBD	Sampling locations
Proposed Pervious & Impervious Areas Exhibit	Areas of soil disturbance (temporary or permanent)
Grading Plans, sheets 1-4	Active areas of soil disturbance (cut or fill)
Temporary Erosion Control Plans, sheets 1-3	Locations of runoff BMPs
Temporary Erosion Control Plans, sheets 1-3	Locations of erosion control BMPs
Temporary Erosion Control Plans, sheets 1-3	Locations of sediment control BMPs
N/A	Advanced Treatment System (ATS) location (if applicable)
N/A	Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
Storm Drain Plans, sheets 1-5	Locations of all post construction BMPs
Temporary Erosion Control Plans, sheets 1-3	Waste storage areas
Temporary Erosion Control Plans, sheets 1-3	Vehicle storage areas
Temporary Erosion Control Plans, sheets 1-3	Material storage areas
Temporary Erosion Control Plans, sheets 1-3	Entrance and Exits
N/A	Fueling locations

Notes: (1) Indicate maps or drawings that information is included on (e.g., Vicinity Map, Site Map, Drainage Plans, Grading Plans, Progress Maps, etc.)

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

The General Permit recognizes four phases of construction (1) Grading and Land Development Phase, (2) Streets and Utilities Phase, (3) Vertical Construction Phase, and (4) Final Landscaping and Site Stabilization Phase. Each phase has activities that can result in different water quality effects from different water quality pollutants. BMPs for the site are to be implemented and maintained throughout the year on an as-needed basis. BMPs should be implemented in a proactive manner, as appropriate, to protect water quality.

This SWPPP addresses all four (4) phases of construction. Table 3.1 describes the major construction activities that are covered by this SWPPP. The sequence of BMP installation activities for each phase is described. Activities are presented in the order (sequence) they are expected to be completed. The contractor shall install additional erosion control measures as may be required by the engineer due to uncompleted grading operations or unforseen circumstances which may arise.

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Erosion Control	Scheduling	Prior to Construction	Entirety of Project
	Preservation of Existing Vegetation	Start of Construction	Entirety of Project
	Straw Mulch	Start of Construction	As needed
	Earth Dikes and Drainage Swales	Start of Construction	As needed
	Slope Drains	Start of Construction	As needed
	Soil Preparation/Roughening	Start of Construction	As needed
Sediment Control	Silt Fence	Prior to construction	Entirety of Project
	Sediment Basin	Start of Construction	As needed
	Check dams	In conjunction with construction	As needed
	Fiber Rolls	Start of Construction	As needed
	Gravel Bag Berm	Start of Construction	As needed
	Street Sweeping and Vacuuming	Start of Construction	As needed
	Straw Bale Barrier	Start of Construction	As needed
	Storm Drain Inlet Protection	Start of Construction	As needed
Tracking Control	Stabilized Construction Entrance/Exit	Start of Construction	As needed
	Stabilized Construction Roadway	Start of Construction	As needed
	Entrance Outlet Tire Wash	Start of Construction	As needed

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Wind Erosion	Wind Erosion Control	Start of Construction	Entirety of Project

3.2 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls are required by the General Permit to provide effective reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from the Site. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

3.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles.

A project's total disturbed soil area (DSA) shall not exceed 5 acres during the rainy season (October 1-April 30) and 17 acres during the non-rainy (May 1- September 30) season. The District may temporarily increase these limits if the individual site is in compliance with applicable stormwater regulations and the site has adequate control practices implemented to prevent stormwater pollution. The Contractor must provide a mobilization plan, including a description of the delivery and deployment of appropriate BMP material to the jobsite prior to all predicted rain events, to the District for approval prior to increasing the DSA.

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

1. Preserve existing vegetation where required and when feasible.
2. Minimize the areas that are cleared and graded.
3. The area of soil disturbing operations shall be controlled such that the Contractor is able to implement erosion control BMPs quickly and effectively.
4. Stabilize inactive areas or areas scheduled to be inactive at the cessation of construction activities.
5. Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding or alternate methods.
6. Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.

Sufficient erosion control materials shall be maintained onsite to allow implementation in conformance with this SWPPP.

This SWPPP has been designed to meet the requirements of the General Permit:

Implement effective wind erosion control (D.1)[1].

☒ Yes ❑ N/A (provide explanation)

Provide effective soil cover for inactive area and all finished slopes, open space, utility back fill and complete lots (D.2)[1].

☒ Yes ❑ N/A (provide explanation)

Limit the use of plastic material when more sustainable environmentally friendly alternatives exist (D.3)[1].

☒ Yes ❑ N/A (provide explanation)

Specific erosion controls measures to be implemented and maintained at the project site are denoted with an "X" and described below. BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP and over guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the BMP Fact Sheets. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Erosion Controls
Scheduling (EC-1) ☒ All BMPs shall be in place year-round. Construction activities shall be planned and performed to minimize the area and duration of exposure of soil to erosion by wind, rain, runoff and vehicle tracking. ☒ The area that can be cleared or graded and left exposed at one time will be limited to the amount of acreage that the Contractor can adequately protect prior to a predicted rainstorm. A predicted storm event is defined as a forecasted 50% chance of rain. ☒ Timing of construction will be considered when scheduling work to minimize soil disturbing activities and major grading operations during the rainy season. ☒ Grading of the site will be phased to minimize the total area of exposed soil and the duration of exposure.
Preserve Existing Vegetation (EC-2) ☒ Existing vegetation will be retained **(EC-2)** in undisturbed areas to the extent possible. If possible, vegetative buffer strips will be left adjacent to watercourses and along the site perimeter.
Slope Roughening (EC-15) ☒ Slopes will be roughened perpendicular to the direction of runoff by track walking, sheepsfoot rolling, imprinting, or other appropriate technique.
Temporary Soil Stabilization ☒ Soil stabilizers (binders) (EC-5), blankets (i.e., rolled erosion control products) (EC-7), straw mulches (EC-6), hydraulic mulches (EC-3), temporary vegetation, and/or temporary seeding will be used on disturbed soil areas as a temporary surface cover until soils can be prepared for re-vegetation and permanent vegetation is established. At a minimum, disturbed areas that will remain bare and un-worked for over two weeks. Any hydraulic soil stabilizers applied will include mulch, so that any potential pollutant transport to the storm drain system is visually detectable.

[1] See section in General Permit Appendix C for Risk Level 1 or Appendix D for Risk Level

Geotextiles, Plastic Covers, and Erosion Control Blankets, (EC-7)
❑ Erosion control blankets will be placed on critical areas where maximum protection is desirable and on steep slopes that are inaccessible by hydraulic equipment or where other temporary soil stabilization methods such as hydraulic mulch, BFM, soil binders, straw mulch, etc. are not feasible. ❑ Any plastic covers used for erosion control shall be properly installed, be used only for small areas due to increased runoff, and only be used for short term application, such as rapid deployment to cover an exposed soil area or stockpile prior to a storm event.
Dust Control
☒ Wind Erosion Controls (WE-1) shall be provided to prevent of alleviate dust generated by construction activities. Care will be taken to prevent over-watering, which may result in runoff or erosion. ❑ Construction roads will be stabilized to prevent tracking of sediments. (TC-2)

Grading activities are anticipated to occur between (TBD). All BMPs shall be in place for the duration of the project. Construction activities shall be scheduled and performed to minimize the area and duration of exposure of soil to erosion by wind, rain, runoff and vehicle tracking. The area that can be cleared or graded and left exposed at one time is limited to the amount of acreage that the Contractor can adequately protect prior to a predicted rainstorm. A predicted storm event is defined as a forecasted 50% chance of rain. Timing of construction shall be considered when scheduling work to minimize soil-disturbing activities and major grading operations during the rainy season.

The following erosion controls will be implemented at the project construction site. Silt fences and sand bags shall be used in the perimeter of the site and filter fabrics in combination with sand bags shall be installed on all existing and newly constructed catch basins, inlets or open pipes that may outlet into the bay. Vegetation will be preserved to the maximum extent practicable (EC-2). Only areas necessary for construction will be disturbed, cleared, or graded. Areas of vegetation to be protected will be clearly designated as no disturbance areas on the plans, and flagged in the field to exclude construction vehicles. Specific shrubs and trees to be preserved should be clearly marked.

Disturbed areas on the site include construction staging areas, stock pile area, material storage areas, graded earth pads, cut and fill slopes, and graded parking lot. Land grading will be performed to minimize erosion and protect vegetation. Disturbed areas of the construction site that will not be re-disturbed will be stabilized by the day after the last disturbance. Slopes steeper than 12:1 shall be covered with mulch and protected..

Final cut and fill slopes shall be no steeper than 2:1 (horizontal to vertical). This project shall not have slopes taller than 10’ in height measured from toe to top of slope. Fill slopes shall be constructed in accordance with project specifications.

Graded cut and fill slopes will be imprinted with the texture of the roughened surface trending perpendicular to the direction of runoff (EC-15). The slope will be left in the roughened condition to slow flow velocities, enhance water infiltration, and enhance vegetative growth. Where the slope is too steep to allow construction traffic to travel parallel to the slope, cleated dozers traveling up and down the slope can produce a satisfactory texture on newly compacted soil.

Wind Erosion Control measures (WE-1) will be used to stabilize soil from wind erosion, and reduce dust generated by construction activities including grading, demolition and travel on unpaved temporary roads. Dust control shall be provided daily or more often by the application of water. Care shall be taken to prevent over-watering, which may result in runoff or erosion.

Heavily traveled earthen roads will be stabilized (TC-2) and/or sprayed daily by a water truck for dust suppression. Care will be taken to spray additional areas of exposed soil as necessary during windy periods. Only the minimum amount of water will be used; no runoff will result from this practice

Locations for specific erosion control measures for the project are included on the Erosion Control Plans (EC) prepared by Moffatt & Nichol and contained in Appendix B of this SWPPP.

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures that are intended to complement the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

This SWPPP has been designed to meet the requirements of the General Permit:

Establish and maintain effective perimeter controls and stabilize all construction entrances and exits (E.1)[1].

☒ Yes ❑ N/A (provide explanation)

Onsite where sediment basins are used, design sediment basins according to the method provide in the latest update of Fact Sheet SE-2 of the CASQA Construction BMP Hand Book (E.2)[1].

☒ Yes ❑ N/A (provide explanation)

Specific sediment controls measures to be implemented and maintained at the project site are denoted with an "X" and described below. BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP and over guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the BMP Fact Sheets. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Sediment Controls
Stabilize Perimeter ☒ Before commencing grading or clearing of the site, clearing limits, easements, setbacks, and vegetation to be preserved will be delineated by marking in the field **(EC-2)** and/or stabilized with non-vegetative controls such as geotextiles **(EC-7)**, riprap or gabions (wire mesh boxes filled with rock), and mulches such as straw **(EC-6).** ☒ To prevent transport of sediment into existing storm drain inlets and onto adjacent properties and roadways, before grading or clearing, the site perimeter will be stabilized using controls such as silt fences **(SE-1)** or straw bale barriers **(SE-9)**; tracking controls such as stabilized construction entrances **(TC-1);** storm drain inlets will be protected **(SE-10)**; and sediment traps (if applicable) **(SE-3)** will be constructed.

Silt Fence (SE-1)

- ☒ Temporary silt fences will be constructed and maintained at the toe of exposed and erodible slopes, down slope of exposed soil areas, along the perimeter of the site, or around temporary soil stockpiles to allow sediment to settle from runoff before water leaves the site.
- ☒ Silt fence shall be properly installed and maintained regularly by the Contractor including but not limited to trenching and keying in the bottom of the silt fence fabric, replacing warn fabric, and providing adequate sediment capacity (i.e., clean when sediment reaches 1/3 of the barrier height). Silt fence is not effective in concentrated flow areas.

Sediment Basin (SE-2)

- ☒ In general sediment basins are suitable for drainage areas of 5 acres or more, but not appropriate for drainage areas greater than 75 acres. Remove standing water from basin within 96 hours after accumulation. The outflow from the basin will be designed to prevent erosion and/or scouring of the basin embankment and channel. Stormwater sediment basin(s) will be constructed early in the site grading process to collect sediment from all areas during construction.

Sediment Traps (SE-3)

- Temporary sediment traps (temporary basin with a controlled release structure) will be used to reduce sediment prior to entering the storm drain, and around and/or up-slope from storm drain inlet protection measures.

Check Dams (SE-4)

- ☒ Check dams will be used in unlined drainage channels to slow runoff velocity and encourage settlement of sediment.

Fiber Rolls (SE-5)

- ☒ Fiber rolls will be used to reduce flow velocity (as slope interrupters or temporary check dams) and provide some removal of sediment, predominantly along the face or toe of erodible slopes and for perimeter sediment control. Fiber rolls are not appropriate as the only BMP at a site and should be used in conjunction with other erosion and sediment control measures to reduce pollutant discharges and shall be maintained by the Contractor for effective sediment control.

Gravel bag berms (SE-6)

- ☒ Gravel bag berms will be used to reduce flow velocity (as slope interrupters or temporary check dams) and provide some removal of sediment.
- ☒ Gravel bag barriers will be used for perimeter site control or along streams or channels or around stockpiles to intercept sediment laden sheet flow or moderately concentrated flows.

Tracking Controls

- ☒ A stabilized construction entrance will be used to reduce offsite tracking (TC-1).
- ☒ All dirt and debris tracked or transported to offsite paved surfaces will be removed at the end of each work day by manual or mechanical sweeping (SE-7).
- ☒ Construction roads will be stabilized to prevent tracking of sediments. (TC-2)
- ☒ A wheel wash will be used if offsite tracking cannot be controlled by a stabilized entrance and sweeping (TC-3).

Straw Bale Barriers (SE-9) ☒ Straw bale barriers will be constructed and maintained at the toe of exposed and erodible slopes down slope of exposed soil areas or around temporary soil stockpiles to allow sediment to settle from runoff before water leaves the site.
Storm Drain Inlet Protection (SE-10) ☒ All storm drains in the project area and offsite where inlets can receive flow downstream of sediment tracked from the site will be protected with appropriate storm drain inlet protection such as filter fabrics, block and gravel filters, gravel and wire mesh filters, or gravel bag barriers.

Prior to any ground-disturbing activities, including grading, demolition, or vegetation removal, silt fences and/or fiber roll will be placed around the site perimeter. Vegetative buffers will be maintained wherever possible. Construction entrances and exits will be stabilized with gravel and gravel bags will be placed at all storm drain inlets that could receive runoff from the construction site.

During construction, stormwater runoff shall be directed away from disturbed areas. Properly installed earthen dike and drainage swales [EC-9], silt fences (SE-1) (with the toe embedded into the soil); and sediment basins (SE-2) shall be used to limit the discharge of sediment and pollutants from the site, as described below.

In general sediment basins are suitable for drainage areas of 5 acres or more, but not appropriate for drainage areas greater than 75 acres. However, this site will have 5 or fewer disturbed acres at any given time, temporary sediment traps, silt fences or equivalent measures will be installed along the downhill boundary of the construction site. It is anticipated that the majority of the site will be provided with BMPs as outlined in the project Erosion Control Plans.

Perimeter sediment controls, including controls along the physical site perimeter and at active storm drain inlets, and sediment traps, shall be implemented prior to the start of construction and maintained throughout the duration of construction activities. Perimeter sediment controls will include silt fence (SE-1) and straw bales (SE-9).

Locations for specific sediment control measures for the project are included on the Temporary Erosion Control Plans prepared by Moffat & Nichol and contained in Appendix B of this SWPPP.

The construction site will be managed to minimize the amount of dirt, mud, or dust that is generated and can thus be tracked or blown off the site. The Contractor shall provide a stabilized construction entrance (TC-1) to reduce offsite tracking. A wheel wash (TC-3) shall be used in problem areas with fine grain soils or where offsite tracking cannot be controlled by a stabilized construction entrance and sweeping. All dirt and/or debris tracked or transported to offsite paved surfaces shall be removed at the end of each workday by hand sweeping or mechanized sweeper. Washing of sediment from the right-or-way shall be prohibited.

Locations for specific tracking control BMPs for the project are included on the Temporary Erosion Control Plans prepared by Moffatt & Nichol and contained in Appendix B of this SWPPP.

3.2.3 Drainage Controls

Drainage controls have been selected and designed to effectively manage all run-on and run-off within the site and all run-off that discharges off the site.

This SWPPP has been designed to meet the requirements of the General Permit:

Run-on from offsite shall be directed away from all disturbed area or shall be collectively in compliance with the effluent limitation in the General Permit (F.1)[1].

❑ Yes ☒ N/A (provide explanation)

There is no anticipated offsite run-on

Specific drainage control measures to be implemented and maintained at the project site are denoted with an "X" and described below. BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP and over guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the BMP Fact Sheets. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Earth Dikes, Drainage Swales and Ditches (EC-9) ❑ Diversion ditches to prevent run-on from offsite areas will be constructed and maintained. ☒ Level spreaders, outlets for dikes and flow channels consisting of an excavated depression constructed at zero grade across a slope, will be used to convert concentrated runoff into diffuse flow to be released onto areas stabilized by existing vegetation.
Outlet Protection (EC-10) ☒ Runoff velocities, both on slopes and at discharge points, will be retarded to prevent erosion. ❑ Rock outlet protection (i.e. rip rap) will be placed at pipe outlets to prevent scour and reduce the velocity and/or energy of exiting stormwater flows.
Slope Drains (EC-11) ☒ Pipe slope and/or subsurface drains will be installed to protect slopes against erosion by collecting surface runoff from the road bed, the tops of cuts or from benches in cut or fill slopes and conveying it down the slope to a stabilized drainage ditch or area.

To prevent the development of rills and gullies in graded slopes, runoff will be directed to stabilized conveyance channels and drains. No concentrated flow of water will be allowed to flow down a graded slope face.

Every effort will be made to maintain runoff water in its natural course and direction of flow. Access road surfaces shall be stabilized (TC-2) and compacted to obtain a dense, smooth and uniform surface for construction vehicles. Access roads shall be sloped in a manner that will prevent ponding and damage from water flow. Roads that will remain unpaved for more than 21 days will be provided with adequate drainage features to reduce erosion. These

measures will include rolling dips, water bars, crowning, drainage swales (EC-9) with check dams (SE-4), and slope drains (EC-11).

Where flow is concentrated into stormwater conveyance systems, they will be designed to reduce scour and erosion. Measures to reduce erosion will include slope drains (EC-11), check dams (SE-4), and energy dissipaters.

Locations for specific drainage control BMPs for the project are included on the Temporary Erosion Control Plans prepared by Moffatt & Nichol and contained in Appendix B of this SWPPP.

3.3 NON-STORMWATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

3.3.1 Non-Stormwater Controls

Non-stormwater management BMPs involve good housekeeping practices to prevent non-stormwater discharges from entering the storm drain and source control of potential pollutants to prevent them from coming into contact with runoff. Categories of non-stormwater management include paving operations management, pesticide and fertilizer management, vehicle and equipment cleaning, fueling, and maintenance, and painting controls. The selection of non-stormwater BMPs is based on the list of construction activities with a potential for non-stormwater discharges identified in Section 2.7 of this SWPPP.

This SWPPP has been designed to meet the requirements of the General Permit:

Implement good site management measures for Vehicle Storage and Maintenance (B.3)[1]

☒ Yes ❑ N/A (provide explanation)

Implement good site management measures for Landscape Materials (B.4)[1]

☒ Yes ❑ N/A (provide explanation)

Implement measures to control all non-stormwater discharges (C.1)[1]

☒ Yes ❑ N/A (provide explanation)

Shall wash vehicles in such a manner as to prevent non-stormwater discharges to surface waters or MS4 drainage systems (C.2)[1]

☒ Yes ❑ N/A (provide explanation)

Shall clean streets in such a manner as to prevent unauthorized non-stormwater discharges from reaching surface water or MS4 drainage systems (C.3)[1]

☒ Yes ❑ N/A (provide explanation)

Specific non-stormwater measures to be implemented and maintained at the project site are denoted with an “X” and described below. Fact Sheets for temporary non-stormwater BMPs are provided in Appendix I.

Paving and Grinding Operations (NS-3)

- ☒ Saw-cut slurry will be shoveled, vacuumed and removed from site.
- ☒ Storm drains inlets and manholes will be covered or barricaded and runoff and run-on diverted during saw cutting, paving or grinding operations.
- ☒ Paving materials and machinery will be stored away from storm drains and water bodies.
- ☒ Secondary containment will be used to catch drips, leaks or spills where applicable.
- ☒ Paving will not take place within 72 hours of a predicted storm event or during rainfall.
- ☒ Excess materials (e.g. asphalt, concrete) will be collected, properly stored, and then disposed upon completion of paving operations.

Pesticide and Fertilizer Use

- ☒ Only trained personnel, certified in accordance with federal and state regulations, will perform pesticide application.
- ☒ Recommended usage instructions will be followed for application of pesticides, herbicides and fertilizers.
- ☒ Herbicides and pesticides will not be over applied. Only the amount needed will be prepared.
- ☒ Application of pesticides, fertilizers and herbicides will be avoided when precipitation is forecasted and will be prohibited during precipitation events.
- ☒ Fertilizers will be applied in multiple smaller applications, as opposed to one large application.
- ☒ Vegetative debris will be disposed as green waste or solid waste.

Vehicle and Equipment Cleaning (NS-8)

- ☒ All vehicle, equipment, and machinery washing will be done offsite at commercial wash facilities or at a facility that is properly permitted and discharges wash water to a recycle/reuse system or to the sanitary sewer. On-site vehicle and equipment cleaning is prohibited unless approved by District.
- ❑ District approval obtained for vehicle and equipment cleaning.

Vehicle and Equipment Fueling (NS-9) and Maintenance (NS-10)

- ☒ All vehicle and equipment fueling and maintenance will be conducted offsite unless approved by District.
- ❑ District approval obtained for vehicle fueling
- ❑ District approval obtained for vehicle maintenance.

- ☒ Paint brushes, paint containers, or any other chemical-holding containers will not be rinsed or cleaned onto dirt, stone or paved areas of the site, or into streets, gutters, storm drains, or drainage channels (natural or man-made). Brushes will be “painted out” as much as possible. Water-based paints will be rinsed into waste buckets to be disposed to the sanitary sewer (offsite). Thinners and solvents will be filtered and re-used to the extent feasible. Excess oil-based paints and sludge will be disposed in accordance with applicable waste regulations.
- ☒ All paints, thinners and solvents will be stored in a covered storage area.
- ☒ Outdoor painting will not be conducted during rain events.
- ☒ Waste from scraping or sandblasting will be collected for proper disposal.
- ☒ Painting operations will be properly enclosed or covered to avoid drift.
- ☒ Air quality and OSHA standards for wind drift while painting will be followed.
- ☒ Paint will be mixed indoors or in a containment area.

Paving and Grinding Operations

In order to reduce the potential for the transport of pollutants in stormwater runoff from paving operations, paving shall be rescheduled if rain is forecasted. If paving does occur within 72 hours of a storm event, catch basin filters, or other appropriate BMPs will be utilized to trap hydrocarbons.

Any pavement cutting waste, generated by pavement cutting activities, shall be vacuumed up and disposed of immediately (NS-3).

Pesticide and Fertilizer Use

Apply pesticides only as specified on the "Pesticide Use Recommendation" on the label. The pesticide label is considered the law. Use of a pesticide inconsistent with the label is considered a violation. Minimize the use of pesticides in and near the storm drainage system or watercourses. Record the use of all pesticides. Avoid applying pesticides before a predicted rain event.

Apply only the type and quantity of fertilizer needed, based on the fertility of the soil and the type of vegetation. Do not over-irrigate following fertilizer application. Do not apply fertilizer before a predicted rain event.

Vehicle and Equipment Cleaning, Fueling and Maintenance

Vehicles and heavy machinery are a potential source of pollutants such as petroleum products, antifreeze, and exhaust and waste oil containing heavy metals. Pollutants may enter stormwater runoff by means of direct contact with machine parts and by contact with spills on surfaces and the ground. On-site vehicle and equipment fueling and maintenance are prohibited unless specific provisions to contain and dispose of fluid drips and spills are implemented and approved by District in the SWPPP.

3.3.2 Materials Management and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing and using construction materials to prevent the release of those materials into stormwater discharges. The amount and type of construction materials to be utilized at the Site will depend upon the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment, or the materials may be used for a discrete period, such as soil binders for temporary stabilization.

Waste management consist of implementing procedural and structural BMPs for handling, storing and ensuring proper disposal of wastes to prevent the release of those wastes into stormwater discharges.

Materials and waste management pollution control BMPs shall be implemented to minimize stormwater contact with construction materials, wastes and service areas; and to prevent materials and wastes from being discharged offsite. The primary mechanisms for stormwater contact that shall be addressed include:

- Direct contact with precipitation.
- Contact with stormwater run-on and runoff.
- Wind dispersion of loose materials.
- Direct discharge to the storm drain system through spills or dumping.
- Extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into stormwater.

This SWPPP has been designed to meet the requirements of the District JRMP and the General Permit:

Implement good site management measures for Construction Material that could potentially be a threat to water quality if discharge (B.1)[1].

☒ Yes ❑ N/A (provide explanation)

Implement good site management measures for Waste Management (B.2)[1].

☒ Yes ❑ N/A (provide explanation)

Specific material management and waste management control measures to be implemented and maintained by the contractor at the project site are denoted with an "X" and described below. BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix I. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP and over guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the BMP Fact Sheets. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Materials Delivery and Storage (WM-1)

- ☒ Designate areas of the construction site for material delivery and storage. Material storage areas will be placed near construction site entrances, away from drain inlets, culverts and surface water bodies.
- ☒ District specific requirement: Keep all materials stockpiles of treated wood and metals covered during wet weather.
- ☒ Designated storage areas will be kept clean and well organized.
- ☒ Any materials being stored which could release pollutants by wind or runoff transport shall be protected by overhead cover, secondary containment, tarpaulins, or other appropriate method.
- ☒ Regular inspections of storage areas will be conducted to monitor inventory and check for leaking containers.
- ☒ Any chemicals, drums or bagged materials not stored in a covered location, will be stored on pallets, and when possible in secondary containment.
- ☒ Secondary containment will be provided for liquids.
- ☒ Secondary containment areas will be covered to prevent accumulation of rainwater.

Materials Use (WM-2)

- ☒ Materials will be used in accordance with manufacturer directions and in a manner to prevent release of pollutants.
- ☒ An accurate, up-to-date inventory of materials delivered and stored on-site will be kept.
- ☒ Required: Application of any erodible landscape material will be discontinued 2 days prior to a forecasted rain event or during periods of precipitation.

Stockpile Management (WM-3)

- ☒ Stockpiles will be covered or protected by soil stabilization measures when not in use and at the end of each day throughout the term of the contract (WM-3). Stockpiles shall be protected with temporary perimeter sediment barriers.

Spill Prevention and Control (WM-4)

- ☒ If a spill were to occur at the site, it will never be cleaned-up by hosing off the area. Dry material spills will never be hosed down or buried.
- ☒ Any fuel products, lubricating fluids, grease or other products and/or waste released from the Contractor's vehicles, equipment, or operations shall be collected and disposed of immediately in accordance with State, Federal and local laws.
- ☒ If the spill has occurred during a rain event, the area will be covered as quickly as possible. The spill will be cleaned up as soon as possible after cessation of rain.
- ☒ Spill cleanup materials will be stored near potential spill areas (e.g., painting, vehicle maintenance areas).

Solid Waste Management (WM-5)

- ☒ There will be designated temporary waste storage areas on the site.
- ☒ The site will be kept clean of litter and waste.
- ☒ Non-hazardous construction wastes (e.g., vegetation, trash, and construction debris) will be collected from throughout the site regularly and deposited at the designated waste storage areas. Additional containers and more frequent pickup will be provided during the demolition phase of construction.
- ☒ When practical, non-hazardous site wastes will be stored within covered, water-tight dumpsters and/or containers that prevent exposure to rain and prevent loss of wastes when it is windy.
- ☒ All waste materials will be removed from the storage areas by the Contractor or a licensed subcontractor on a weekly basis and disposed or recycled in accordance with all Federal, State, and local regulations.
- ☒ Dumpsters will not be hosed out on the construction site. Any required dumpster cleaning will be done offsite by the trash hauling contractor.
- ☒ Any solid waste that accumulates at erosion and sediment control devices will be removed immediately.
- ☒ Dumpsters shall be closed at the end of every business day and during rain event.

Sanitary/Septic Control Measures (WM-9)

- ☒ Portable sanitary facilities will be transported to and from the site by a licensed contractor, placed in a convenient location and maintained in good working order by a licensed service.
- ☒ Untreated wastewater will never be discharged to surface waters or on-site storm drains and will never be buried.

Hazardous Materials Management (WM-1)

- ☒ Storage of hazardous materials on site will be minimized. Any hazardous materials generated during construction will be containerized and kept closed during work activities.
- ☒ Hazardous materials will be stored in covered, sealed containers within a bermed storage area. Lids alone will not be considered adequate cover.
- ☒ Bermed storage area will be covered.
- ☒ Designate areas of the construction site for hazardous material delivery and storage. Material storage areas will be placed near construction site entrances, away from drain inlets, culverts and surface water bodies.
- ☒ Designated storage areas will be kept clean and well organized.
- ☒ The following types of materials will be stored in a covered storage area: fertilizers, herbicides, pesticides, detergents, fuels, oil, grease, glues, paints, plaster, solvents, curing compounds materials, and other similar materials that could be considered potential pollutants in stormwater discharge.
- ☒ Regular inspections of storage areas will be conducted to monitor inventory and check for leaking containers

Hazardous Waste Management (WM-6)

- ☒ Hazardous wastes and containers will be placed in a designated hazardous waste storage area that is covered and has an impermeable bottom surface surrounded by secondary containment to minimize the mixing of wastes with stormwater and to prevent the direct release of liquid waste to stormwater. The temporary storage and removal of hazardous wastes from the site will be in accordance with all applicable state and federal laws.
- ☒ Wastes will be segregated and recycled where feasible (e.g., paints, solvents, used oil, batteries, anti-freeze). Wastes will not be mixed since this can cause chemical reactions, will make recycling impossible and complicate disposal.
- ☒ Covered waste bins will be designated for the disposal of all empty product (e.g., paints, solvents, glues, petroleum products, concrete, exterior finishes, pesticides, fertilizers, etc.) containers. The original product label will not be removed as it contains important safety and disposal information.
- ☒ Toxic wastes and chemicals will not be disposed of in dumpsters designated for construction debris.
- ☒ If any asbestos is discovered in the demolished materials, asbestos removal and disposal will be performed by a licensed contractor or licensed subcontractor trained in asbestos removal. All removal and disposal will be done in accordance with state and federal regulations. Any asbestos wastes stored on-site prior to removal will be stored within dumpsters (roll-offs) covered with tarps or other appropriate method to prevent contact with rain and minimize exposure to wind.
- ☒ Universal waste shall be handled and disposed of in accordance with applicable local, State and Federal regulation.
- ☒ Employees and subcontractors will be trained on proper storage practices

Concrete Waste Management (WM-8)

- ☒ No raw cement materials will be stored on site.
- ☒ Concrete trucks and transfer chutes will be washed-out on-site utilizing a concrete washout to collect all washwater and concrete waste. The washout area will be located away from storm drains, open ditches or water bodies.
- ☒ No concrete washout water or concrete sawcutting wastewater will be discharged offsite.
- ☒ Gravel bags will be used to prevent offsite discharge of saw-cut slurry and sediment will be cleaned up when dry.
- ☒ On a regular basis during concrete work, solid concrete that has accumulated on-site will be broken up, removed and hauled away. Washing of fresh concrete will be avoided to the extent possible.
- ☒ Excess concrete will not be dumped on-site, except in designated areas.
- ☒ Sweepings from exposed aggregate concrete will not be washed into the street or storm drain. The sweepings will be collected and returned to the aggregate stockpile or disposed in the trash.
- ☒ Employees and subcontractors will be trained in proper concrete waste management.

Many materials used in construction can contribute pollutants to stormwater runoff. Examples of such materials include vehicle fuels, oils, and antifreeze. Any materials being stored which could release constituents by wind or runoff transport shall be protected by overhead cover, secondary containment, tarpaulins, or other methods approved by the Engineer. All construction materials will be delivered to and stored in designated areas at the construction site (WM-1). The main loading, unloading, and access areas should be located away from storm drain inlets and channels. The Contractor will construct enclosures or flow barriers (berms) around these areas to prevent stormwater flows from entering storm drains or receiving waters, and to control the discharge of sediments and other pollutants.

Material Use

All hazardous material will be stored in covered, sealed containers, within a bermed area. The bermed storage area will be covered to prevent contact with stormwater.

Stockpiles

Stockpiles will be covered or protected by soil stabilization measures when not in use and at the end of each day throughout the term of the contract (WM-3). Stockpiles shall be protected with temporary perimeter sediment barriers.

Spill Prevention and Control (SC-11)

The following measures will be undertaken at the site to prevent or reduce the discharge of pollutants to stormwater from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees:

- Operating procedures at the facility to prevent spills
- Control measures (such as secondary containment) installed to prevent oil spills from entering navigable waters or adjoining shorelines
- Countermeasures to contain, cleanup, and mitigate the effects of an oil spill that has impacted navigable waters or adjoining shorelines.

The spill equipment will be located in the following areas:

- On-site at storage areas.
- At the job site trailer.

Contractor shall provide a Spill Prevention and Control Plan outlining the following:

- Facility diagram and description of the facility
- Appropriate secondary containment or diversionary structures
- Site security
- Facility inspections
- Requirements for bulk storage containers including inspections, overfill, and integrity testing requirements
- Transfer procedures and equipment (including piping)
- Requirements for qualified oil-filled operational equipment
- Loading/unloading rack requirements and procedures for tank cars and tank trucks
- Personnel training

Recordkeeping requirements for all hazardous materials kept on-site. In the event of a spill, follow reporting procedures presented in Section 3.3.3.

Waste Management

There will be designated temporary waste storage areas on the site. The sites will be contained within earthen berms (EC-9). Non-hazardous construction wastes (e.g., vegetation, trash, and construction debris) will be collected from throughout the site once a day and deposited in central piles at the designated waste storage areas. When practical, wastes will be stored within covered dumpsters. All waste materials will be removed from the storage areas by the Contractor or a licensed subcontractor on a weekly basis and transported to an offsite landfill or to the appropriate recycling facility. The disposal of excess material offsite will comply with all Federal, State, and local regulations.

Compliance with State/Local Sanitary Waste Regulations

The following measures will be implemented to ensure compliance with local, State and Federal waste disposal, sanitary sewer or septic system regulations:

- Portable sanitary facilities will be transported to and from the site by a licensed contractor, placed in a convenient location and maintained in good working order by a licensed service.
- Untreated wastewater will never be discharged to surface waters or on-site storm drains and will never be buried.

Hazardous Materials and Waste Management

The following BMPs will be implemented to minimize or eliminate the discharge of pollutants from construction site hazardous waste and materials to the storm drain system or to watercourses:

- Store within bermed and covered area.
- Maintain hazardous materials locked and monitored.

Contaminated Soil Management

A number of practices occurring during construction may lead to contamination of soils. For example, leaks and spills of petroleum products from leaking vehicles and routine vehicle and equipment maintenance can cause soil contamination or areas of historic contamination may be encountered. All contaminated soils resulting from vehicle leaks or maintenance must be removed and disposed of correctly (WM-7). No contaminated soils shall be buried or otherwise disposed on site.

Concrete Waste Management

Whenever possible, concrete trucks will be washed-out offsite in designated areas. If washout must occur on site, concrete washout facilities shall be provided and properly maintained by the Contractor. Facilities shall be maintained with a minimum 12" freeboard and cleaned or replaced when the washout is 75% full. No overflow from concrete washouts is permitted to runoff the site. Upon completion of the concrete work, the concrete will be broken up, removed, and reused on site or hauled away (WM-8). Washing of fresh concrete will be avoided, unless runoff can be drained to a bermed or level area, away from storm drain inlets and channels.

3.3.3 District Spill Reponses and Reporting Procedures

Proper disposal of all spill cleanup material will be done within 24 hours of the incident.

Non-Stormwater Discharges

All non-stormwater discharges that enter a storm drain and/or enter San Diego Bay shall be immediately abated and cleaned. Notification of the spill is to be made to the District PGP Department at 619-686-6254. Sampling of non-stormwater shall be in accordance with the CSMP Section 7.7.3. Documentation of the non-stormwater release and response activities will be recorded on "Quarterly Visual Observation of Non-Stormwater Discharges" Form in Appendix J.

Sewage and Petroleum Discharges

All sewage or petroleum spills that enter a storm drain and are not fully contained, and/or reach San Diego Bay, or spills 5 gallons or greater of potentially hazardous materials, and/or any spill of hazardous material of Federal Reportable Quantity (as established under 40 CFR Parts 110, 117, or 302), shall be documented in Table 3.1 and the Project Superintendent shall notify the San Diego Harbor Police Department (619-686-6272) who will notify the National Response Center by telephone at (800) 424-8802, if appropriate. Additionally, the Project Superintendent will notify the Coast Guard (619-295-3121) of any petroleum spill that reaches San Diego Bay, or the County of San Diego Department of Environmental Health (619-338-2222) of any sewage spill that reaches San Diego Bay or any waters of the state. The Project Superintendent will submit a written description of the release to EPA Region 9, including the date, circumstances of the incident, and steps taken to prevent another release within 14 days, if a Federal Reportable Release occurred. A copy of this report is to be submitted to the District PGP Department.

SWPPP Reportable Quantity Releases

This table will be completed for any release of petroleum products or sewage that enters a storm drain and are not fully contained and/or reach San Diego Bay; any release 5 gallons or greater of potentially hazardous material, and/or any Reportable Quantity spill of hazardous materials (as established under 40 CFR Part 110[1], 40 CFR Part 117[2], or 40 CFR 302[3]) that occurs on site.

1. 40 CFR Part 110 addresses the discharge of oil in such quantities as may be harmful pursuant to Section 311(b)(4) of the Clean Water Act.

2. 40 CFR Part 117 addresses the determination of such quantities of hazardous substances that may be harmful pursuant to Section 311(b)(3) of the Clean Water Act.
3. 40 CFR Part 302 addresses the designation, reportable quantities, and notification requirements for the release of substances designated under Section 311(b)(2)(A) of the Clean Water Act.
4. Copies of the above regulations are available by contacting the Port of San Diego Planning and Green Port (619-686-6254) or on the District website (www.portofsandiego.org).

Table 3.2 Spill Quantities

Date of Spill	Material Spilled	Approximate Quantity	Agencies Notified	Date Notified

3.4 POST CONSTRUCTION STORMWATER MANAGEMENT MEASURES

Post construction BMPs are permanent measures installed during construction, designed to reduce or eliminate pollutant discharges from the site after construction is completed.

Proper operation and maintenance (O&M) will be implemented by the San Diego Symphony and per approved O&M Plan for permanent structural BMPs so that they continue to function as designed. This is especially important for treatment controls (e.g., on-site retention or detention basins, vegetated swales, catch basin filters or inserts), since their routine maintenance involves activities such as sediment removal, vegetation management, and replacement of filters or inserts.

A plan for post construction BMP funding and maintenance has been developed to address at minimum five years following construction. The post construction BMPs that are described in the Stormwater Quality Management Plan (SWQMP) shall be funded and maintained as indicated in the O&M Plan. If required, post construction funding and maintenance will be submitted with the NOT.

This site is subject to a Phase I MS4 permit. Post construction runoff reduction requirements have been satisfied through the MS4 program, this project is exempt from provision XIII A of the General Permit. All required treatment BMPs have been designed to meet Standard Urban Stormwater Mitigation Plan (SUSMP) numerical sizing requirements and are described in the project Urban Stormwater Management Plan (USMP) (USMP reference).

Section 4 BMP Inspection, Maintenance, and Rain Event Action Plans

4.1 BMP INSPECTION AND MAINTENANCE

The General Permit requires routine weekly inspections of BMPs, along with inspections before, during, and after qualifying rain events. The construction general permit defines a qualifying rain events as an event that produces 0.5 inchs or more precipiation with a 48 hour or greater dry period between events. A BMP inspection checklist must be filled out for inspections and maintained on-site with the SWPPP. Refer to Construction Site Monitoring Plan (Section 7) for rain event inspection information. The inspection checklist includes the necessary information covered in Section 7.6. Inspection and monitoring records shall be kept in Appendix J.

BMPs shall be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions shall be begin within 72 hours of identified deficiencies and associated amendments to the SWPPP shall be prepared by the QSD.

Specific details for maintenance, inspection, and repair of BMPs selected for this Site can be found in the BMP Factsheets in Appendix I.

4.2 RAIN EVENT ACTION PLANS

Rain Event Action Plans (REAPs) are not required for Risk Level 1 projects.

Section 5 Training

Appendix M identifies the QSP(s) for the project. To promote stormwater management awareness specific for this project, periodic training of job-site personnel shall be included as part of routine project meetings (e.g. daily/weekly tailgate safety meetings), or task specific trainings as needed.

The QSP shall be responsible for providing this information at the meetings, and subsequently completing the training logs shown in Appendix L, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Tasks may be delegated to trained employees by the QSP provided adequate supervision and oversight is provided. Training shall correspond to the specific task delegated including: SWPPP implementation; BMP inspection and maintenance; and record keeping.

Documentation of training activities (formal and informal) is retained in SWPPP Appendix L.

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

Approved Signatory:

Approved Signatory(ies) who are responsible for SWPPP implementation and have authority to sign permit-related documents are identified in Appendix M. Written authorizations from the Port of San Diego for these individuals are provided in Appendix M.

Data Submitters:

Data Submitters who are responsible for SMARTS updates are listed in Appendix M.

Qualified SWPPP Practitioner:

The QSP shall ensure that all BMPs required by the General Permit and this SWPPP are implemented. In general the QSP is responsible for non-stormwater and stormwater visual observations, sampling and analysis. The QSP contact information and responsibilities for this project are listed below. Note: A QSD can serve the role of the QSP also. The QSP(s) are indentified in Appendix M.

Responsibilities

- Responsible for overall SWPPP implementation, ensuring that materials and manpower are made available for the successful maintenance of all erosion and sediment control and other BMPs specified in the SWPPP.
- Responsible for maintaining an up-to-date copy of this SWPPP onsite at all times, from commencement of construction to final site stabilization.
- Responsible for making a copy of the SWPPP available for inspection by outside authorized regulatory authorities upon request.
- Responsible for ensuring that field engineering activities are planned and conducted in accordance with the SWPPP.
- Responsible for directing ongoing regular BMP maintenance activities (e.g. silt fence repair, fiber roll replacement, sediment removal, timely waste disposal, etc).
- Responsible for implementing and overseeing necessary corrective actions to the erosion/sediment control devices and other BMPs identified during regular site inspections.
- Responsible for maintaining all site records pertaining to inspection and maintenance of erosion and sediment controls and other BMPs as well as records detailing the dates on which major construction activities began and were completed.
- Responsible for conducting Environmental Awareness Training for site personnel (including subcontractor personnel). This involves increasing awareness of the need to comply with the SWPPP which includes: minimizing sediment in stormwater discharges offsite as well as keeping a clean site and minimizing the potential for construction materials and wastes from entering stormwater discharges.
- Responsible for conducting regular documented inspections of erosion and sediment control devices and other BMPs contained in this SWPPP (as discussed in Section 4.0). The findings of these inspections are discussed with the Project Field Engineer who in turn makes available

the necessary resources to repair/replace any defective control devices identified in the inspection.

- Responsible for acting as the site spill coordinator to document spills, direct clean-up activities, minimize impact to stormwater, and ensure that the proper reporting, if necessary, is completed.
- Responsible for ensuring that all subcontractors involved with construction activities, which may potentially affect stormwater quality at the site, are made aware of, and their contracts reflect that they must comply with the applicable provisions of this SWPPP.

6.2 CONTRACTOR LIST

Appendix N includes a list of all contractors, subcontractors and individuals that will be directed by the QSP for actives covered under this SWPPP. At a minimum the following information shall be included:

- TBD
- TBD
- TBD
- Address
- Phone
- Number (24/7)

Section 7 Construction Site Monitoring Program

7.1 PURPOSE

This Construction Site Monitoring Program was developed to address the following objectives:

1. To demonstrate that the project site is in compliance with the Discharge Prohibitions of the Construction General Permit;
2. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
3. To determine whether immediate corrective actions, additional Best Management Practices (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharges; and
4. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges.

7.2 APPLICABILITY OF PERMIT REQUIREMENTS

This project has been determined to be a Risk Level 1 project. The General Permit identifies the following types of monitoring as being applicable for a Risk Level 1 project.

Risk Level 1

- Visual inspections of Best Management Practices (BMPs);
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of construction site runoff as required by the RWQCB when applicable.

7.3 WEATHER AND RAIN EVENT TRACKING

Visual monitoring and inspection requirements of the General Permit are triggered by a qualifying rain event. The General Permit defines a qualifying rain event as any event that produces ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

7.3.1 Weather Tracking

The QSP should consult daily the National Oceanographic and Atmospheric Administration (NOAA) for the weather forecasts. These forecasts can be obtained at http://www.srh.noaa.gov/. Weather reports should be printed and maintained with the SWPPP in Appendix K "Weather Reports and REAP". If rain is forecasted the QSP shall perform a Pre-Rain Event "BMP Inspection Report", are included in Appendix J.

7.3.2 Rain Gauges

The QSP shall install rain gauge(s) on the project site (Number and location TBD). Locate the gauge in an open area away from obstructions such as trees or overhangs. Mount the gauge on a post at a height of 3 to

5 feet with the gauge extending several inches beyond the post. Make sure that the top of the gauge is level. Make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauge(s) shall be read daily during normal site scheduled hours. If there is precipitation QSP shall perform a During-Rain Event "BMP Inspection Report", include in Appendix J. The rain gauge should be read at approximately the same time every day and the date and time of each reading recorded. Log rain gauge readings in Appendix K "Weather Reports and REAP"

Once the rain gauge reading has been recorded, accumulated rain shall be emptied and the gauge reset. If total rainfall is greater than 0.5 inches the QSP shall prepare a Post-Rain Event "BMP Inspection Report" within 48 hours of the conclusion of the storm, included in Appendix J.

For comparison with the site rain gauge, the nearest appropriate governmental rain gauges are located at the San Diego International Airport and the North Island Naval Air Station (NAS), shown on the Nearby NOAA Rain Gauge Map in Appendix K.

7.4 MONITORING LOCATION AND PERSONNEL

Monitoring locations are shown on the Site Maps in Appendix B. Monitoring locations are described in the Sections 7.6 and 7.7.

Whenever changes in the construction site might affect the appropriateness of sampling locations, the sampling locations shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP amended. Temporary changes that result in a one-time additional sampling location do not require a SWPPP amendment.

The QSP or his/her designee will contact the designated laboratory of environmental consultant (TBD) 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins to ensure that adequate sample collection personnel, supplies for monitoring pH and turbidity are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

Samples will be collected and analyzed by:

Contractor	☒ Yes	☐ No
Consultant	☐ Yes	☒ No
Laboratory	☒ Yes	☐ No

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number: TBD

Alternate(s)/Telephone Number:

7.5 SAFETY AND MONITORING EXEMPTIONS

Safety practices for sample collection will be in accordance with the EPA Storm Water Sampling Guidance Document and San Diego Regional Water Quality Control Board.

This project is not required to collect samples or conduct visual observations (inspections) under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are: 7 pm to 3 pm.

If monitoring (visual monitoring or sample collection) of the site is unsafe because of the dangerous conditions noted above then the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in Appendix J.

7.6 VISUAL MONITORING

Visual monitoring includes observations and inspections. Inspections of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Visual observations of the site are required to observe stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.

Table 7.1 identifies the required frequency of visual observations and inspections. Inspections and observations will be conducted at the locations identified in Section 7.6.5.

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	**Frequency**
Routine Inspections	
BMP Inspections	Weekly[1]
Non-Stormwater Discharge Observations	Quarterly during daylight hours
Rain Event Triggered Inspections	
Site Inspections Prior to a Qualifying Event	Within 48 hours prior to qualifying event[2]
BMP Inspections During an Extended Storm Event	Every 24-hour period of a rain event[2,3]
Site Inspections Following a Qualifying Event	Within 48 hours following a qualifying event[2]

[1] Most BMPs must be inspected weekly; those identified below must be inspected more frequently.
[2] Inspections are only required during scheduled site operating hours.
[3] These inspections are required daily regardless of the amount of precipitation.

7.6.1 Routine Observations and Inspections

Routine site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the Construction General Permit.

7.6.1.1 Routine BMP Inspections

Inspections of BMPs are conducted to identify and record:

- BMPs that are properly installed and maintained;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed;
- BMPs that could fail to operate as intended; or
- BMP's previously identified as requiring maintenances have been repaired or replaced.

7.6.1.2 Non-Stormwater Discharge Observations

Each drainage area will be inspected quarterly for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Inspections will record:

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc); and
- Source of discharge.

7.6.2 Rain-Event Triggered Observations and Inspections

Visual observations of the site and inspections of BMPs are required prior to a qualifying rain event; following a qualifying rain event, and every 24-hour period during a qualifying rain event. Pre-rain inspections will be conducted after consulting NOAA and determining that a precipitation event with a 50% or greater probability of precipitation has been predicted.

7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event

Within 48-hours prior to a qualifying event a stormwater visual monitoring site inspection and observations shall be conducted at the following locations:

- Potential pollutant sources are properly stored (i.e. sorted in covered areas, elevated off ground surfaces, etc);
- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly implemented or require maintenance;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

7.6.2.2 BMP Inspections During an Extended Storm Event

During an extended rain event BMP inspections will be conducted every 24 hours during normal business hours to identify and record:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- Evidence of any spills, leaks, or uncontrolled pollutant sources that may have migrated offsite;
- BMPs that are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

If the construction site is not accessible during the rain event, the visual inspections shall be performed at all relevant outfalls, discharge points, and downstream locations. The inspections should record any projected maintenance activities.

7.6.2.3 Visual Observations Following a Qualifying Rain Event

Within 48 hours following a qualifying rain event (0.5 inches of rain) a stormwater visual monitoring site inspection is required to observe:

- Evidence of any spills, leaks, or uncontrolled pollutant sources that may have migrated offsite;
- BMPs to identify if they have been properly designed, implemented, and effective;
- Need for additional BMPs or BMP maintenance;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard; and
- Discharge of stored or contained rain water.

7.6.3 Visual Monitoring Procedures

Visual monitoring shall be conducted by the QSP or staff trained by and under the supervision of the QSP. The name(s) and contact number(s) of the site visual monitoring personnel provided in Appendix L.

Stormwater observations shall be documented on the "BMP Inspection Report" (Appendix J). BMP inspections shall be documented on the site specific BMP inspection checklist. Any photographs used to document observations will be referenced on stormwater site inspection report and maintained with the Monitoring Records in Attachment 2.

The QSP shall, within 2 days of the inspection, submit copies of the completed inspection report to (TBD).

The completed reports will be kept in Appendix J.

7.6.4 Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated and completed as soon as possible.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be initiated within 72 hours of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes.

Deficiencies identified in site inspection reports and correction of deficiencies will be tracked on the "BMP Inspection Report" and shall be submitted to the QSP and shall be kept in Appendix J.

The QSP shall within 3 days of the inspection submit copies of the completed "BMP Inspection Reports" with the corrective actions to (TBD).

Results of visual monitoring must be summarized and reported in the Annual Report.

7.6.5 Visual Monitoring Locations

The inspections and observations identified in Sections 7.6.1 and 7.6.2 will be conducted at the locations identified in this section.

BMP locations are shown on the Erosion Control Plans in SWPPP Appendix B.

There are 8 drainage area(s) on the project site and the contractor's yard, staging areas, and storage areas. Drainage area(s) are shown on the Existing Drainage Areas Exhibit in Appendix B.

There are no stormwater storage or containment area(s) are on the project site. Stormwater storage or containment area(s) are shown on the Site Maps in Appendix B.

There are 2 discharge location(s) on the project site. Site stormwater discharge location(s) are shown on the Storm Drain Plans, sheets 1-5 in Appendix B.

7.7 WATER QUALITY SAMPLING AND ANALYSIS

Water quality sampling and analysis serves to demonstrate the project is in compliance with discharge prohibitions. This project is classified as Risk Level 1 and shall perform water quality sampling and analysis for non-visible pollutants.

7.7.1 Non-Visible Pollutants in Stormwater Runoff Discharges

This CSMP for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in stormwater runoff discharges from the project site.

Sampling for non-visible pollutants will be conducted when (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.

The following construction materials, erosion control products (e.g tackifiers or soil amendments), wastes, or activities, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the Site Maps in Appendix B.

- Tackifiers or soil amendments), wastes, or activities

The following existing site features, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the Site Maps in Appendix B.

- Trash cans
- Bathroom facilities.
- Pump Station
- Lawn areas
- Parking lot and drive isles

7.7.1.1 Non-Visible Pollutants Sampling Schedule

Samples for the potential non-visible pollutant(s) and a sufficiently large unaffected background sample shall be collected during the first two hours of discharge from rain events that result in a sufficient discharge for sample collection. Samples shall be collected during the site's scheduled hours and shall be collected regardless of the time of year and phase of the construction.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during site inspections conducted prior to or during a rain event.

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2)

storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.

- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- A construction activity, including but not limited to those in Section 2.6, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

7.7.1.2 Non-Visible Pollutants Sampling Locations, Collection and Analysis

If a stormwater visual monitoring site inspection conducted prior to or during a storm event identifies the potential for the discharge of non-visible pollutants to surface waters or a storm drain system that was not previously identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations. Non-visible pollutant sampling locations shall be identified by the QSP on the pre-rain event inspection form prior to a forecasted qualifying rain event.

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, and personnel safety. Planned non-visible pollutant sampling locations are shown on the Site Maps in Appendix B and include the locations identified in Table 7.2 through 7.6.

Samples of discharge shall be collected at the designated non-visible pollutant sampling locations shown on the Site Maps in Appendix B. Samples shall be collected in the locations determined by observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in the Table 9, “Table 7.9 List of Non-Visible Laboratory Analytical Constituents” provided in Section 7.7.1.4. Only the QSP, or personnel trained in water quality sampling under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.10.

Samples shall be analyzed using the analytical methods identified in the Table 7.8, and samples will be analyzed by laboratory identified in Section 7.9.

(TBD) sampling location(s) on the project site and the contractor’s yard have been identified for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned.

Table 7.2 Non-Visible Pollutant Sample Locations – Contractors' Yard

Sample Location Number	**Sample Location Description**	**Sample Location Latitude and Longitude** (Decimal Degrees)
TBD		
TBD		

(TBD) sampling locations have been identified for the collection of samples of runoff from drainage areas where soil amendments will be applied that have the potential to affect water quality.

Table 7.3 Non-Visible Pollutant Sample Locations – Soil Amendment Areas

Sample Location Number	**Sample Location**	**Sample Location Latitude and Longitude** (Decimal Degrees)
TBD		
TBD		

(TBD) sampling locations have been identified for the collection of samples of runoff from drainage areas contaminated by historical usage of the site.

Table 7.4 Non-Visible Pollutant Sample Locations – Areas of Historical Contamination

Sample Location Number	**Sample Location**	**Sample Location Latitude and Longitude** (Decimal Degrees)
TBD		
TBD		

(TBD) sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location(s) was selected such that the sample will not have come in contact with the operations, activities, or areas identified in Section 7.7.1 or with disturbed soils areas.

Table 7.5 Non-Visible Pollutant Sample Locations – Background (Unaffected Sample)

Sample Location Number	**Sample Location**	**Sample Location Latitude and Longitude** (Decimal Degrees)
TBD		
TBD		

7.7.1.3 Analytical Constituents

Table 7.7 lists pollutant sources associated with different construction phases, associated field test and water quality indicator constituent(s) for that pollutant.

Table 7.7 Pollutant Sources, Field Test and Indicator Constituents

Pollutant Source	Field Test[1]	Water Quality Indicator Constituent
Demolition		
Sediment	(visible)	
Paint Strippers	N/A	Volatile Organics
Solvents	N/A	Volatile Organics
Adhesives	N/A	Semi-Volatile Organics
Vehicle Fuels	(visible)	Oil and Grease or TPH
Metals	N/A	Total/Dissolved Metals
Bacteria	N/A	Total/Fecal Coliform
Litter	(visible)	
Utility Installation		
Sediment	(visible)	
Fuels/Lubricants	N/A	Oil and Grease/TPH
Chlorinated Water	Colorimetric	
Concrete	pH	Lab pH
Pesticides/Herbicides	N/A	Pesticide Scan/Semi-Volatile Organics
Fertilizers	N/A	$NO_3/NH_3/P$
Bacteria	N/A	Total/Fecal Coliform
Vertical Construction		
Sediment	(visible)	
Paint Strippers	N/A	Volatile Organics
Solvents, Thinners	N/A	Volatile Organics
Detergents	Colorimetric	MBAS
Adhesives, Sealants, Resins	N/A	Semi-Volatile Organics
Fuels, Lubricants, Hydraulic Fluid	N/A	Oil and Grease or TPH
Concrete	pH	Lab pH
Litter	(visible)	
Bacteria	N/A	Total/Fecal Coliform
Organics	N/A	Semi-Volatile Organics
Paint	(visible)	
Wood (sawdust)	(visible)	
Acid Wash	pH	Lab pH
Asphalt (liquid)	N/A	TPH
Habitat Conservation		
Sediment	(visible)	
Nutrients (Fertilizers)	N/A	$NO_3/NH_3/P$
Bacteria	N/A	Total/Fecal Coliform

Based on consultation with SWPPP preparer or monitoring specialist.

7.7.1.4 Non-Visible Pollutants Data Evaluation and Reporting

The QSP shall complete an evaluation of the water quality sample analytical results.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

The General Permit prohibits the stormwater discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the District and other agencies as required by 40 C.F.R. §§ 117.3 and 302.4.

Results of non-visible pollutant monitoring shall be reported in the Annual Report.

Table 7.9 List of Non-Visible Laboratory Analytical Constituents

Constituent/ Parameter Name	Constituent Abbreviation	Bottle Type	Volume Required[1] (mL)	Preservation	Method Type	EPA Method Number	Holding Time	Units	Target Reporting Limit
Conventional									
Specific Conductance	EC	Poly-Propylene	50	N/A	N/A	120.1	ASAP	umhos/cm	1
pH[3]	pH		50	N/A	Electrometric	150.1	ASAP	pH unit	+/- 0.1
Hydrocarbons									
Total Recoverable Petroleum Hydrocarbons	TRPH	Glass	1000	4 degrees Celsius	Gas chromatography	8015b	14 days	µg/L	50
Oil and Grease (HEM/SGT)	O&G		1000	H_2SO_4 to pH<2	Gravimetric	1664	28 days	mg/L	5
Nutrients									
Nitrate-Nitrogen	NO_3-N	Poly-Propylene	100	4 degrees Celsius	Ion chromatography	300.0	48 hours	mg/L	0.1
Ammonia-Nitrogen	NH_3-N		100	None	Titrimetric	350.2	28 days	mg/L	0.1
Total Phosphorus	Total P		100	HNO_3 or H_2SO_4 to pH<2	Colorimetric	365.2	28 days	mg/L	0.03
Detergents	MBAS		500	4 degrees Celsius	Colorimetric	425.1	48 hours	mg/L	0.1
Bacteriological									
Coliform (Fecal)	FC	Poly-Propylene	50	$Na_2S_2O_3$	Multiple-tube fermentation	9211E	6 hours	MPN/100 ml	1
Coliform (Total)	TC		50	$Na_2S_2O_3$	Multiple-tube fermentation	9221B	6 hours	MPN/100 ml	1
Metals									
Total Recoverable	TR	Poly-Propylene	250	HNO_3 or H_2SO_4 to pH<2	GFAA; ICP-MS	200.8	Filter for dissolved fraction and preserve within 48 hours; analyze within 6 months.	µg/L	0.2-5[5]
Dissolved [4]	Diss		250	HNO_3 or H_2SO_4 to pH <2[2]	GFAA; ICP-MS	200.8		µg/L	0.2-5[5]
Organics									
Volatile Organics	VOCs	Glass	2 x 40 vials	4 degrees Celsius	GC-MS	8020	14 days	µg/L	0.5-50
Semi-Volatile Organics	SVOCs		1000	4 degrees Celsius	GC-MS	8270	Extract in 7 days, analyze within 40 days	µg/L	0.05-0.25
Pesticides	Pest		1000	4 degrees Celsius	Gas chromatography	8141, 8081		µg/L	0.5-1

Notes:
(1) For analytical methods, reporting limits, and other specifications, see Table 4-1.
(2) Dissolved metals preserved after filtration.
(3) Report pH to nearest 0.1 std. pH unit. Also report temperature at time of measurement.
(4) Filter dissolved samples prior to analysis.
(5) Target reporting limit varies by metal.

7.7.2 pH and Turbidity in Stormwater Runoff Discharges

Sampling and analysis of runoff for pH and turbidity is not required for Risk Level 1 projects.

7.7.3 Non-Stormwater Discharges

Sampling and analysis of non-stormwater discharges is not required for Risk Level 1 projects.

7.7.4 Other Pollutants Required by the Regional Water Quality Control Board

(RWQCB Requirements TBD)

This CSMP describes the sampling and analysis strategy and schedule for monitoring additional pollutants as specified in the communication from the RWQCB dated (TBD). This communication is included in CSMP Attachment 3 "Supplemental Information".

7.7.4.1 RWQCB Required Sampling Schedule

Runoff samples shall be collected for (TBD) from all qualifying rain events that result in a discharge from the project site. At minimum, samples will be collected from each site discharge location. A minimum of (TBD) samples will be collected per day of discharge from a qualifying event. Samples should be representative of the total discharge from the location each day of discharge during the qualifying event. Typically representative samples will be spaced in time throughout the daily discharge event.

Stored or collected water from a qualifying storm event will be sampled when discharged. Stored or collected water from a qualifying event may be sampled at the point it is release from the storage or containment area or at the site discharge location.

7.7.4.2 RWQCB Required Sampling Locations, Collection and Analysis

Sampling locations are based on the site discharge locations; accessibility for sampling; and personnel safety. Planned sample locations are shown on the Site Maps in Appendix B and include the locations identified below.

Runoff samples of discharge shall be collected at the designated sampling locations as identified above and shown on the Site Maps in Appendix B and as identified in Section 7.7.4.2.

Grab samples shall be collected and preserved in accordance with the methods identified in Table 7.9. Only personnel trained in water quality sampling under the direction of the QSP shall collect samples. Sample collection and handling requirements are described in Section 7.10.

Samples shall be analyzed using the analytical methods and laboratory identified in Table 7.9.

(TBD) sampling location(s) on the project site and the contractor's yard have been identified for the collection of runoff samples.

Table 7.16 Runoff Sample Locations for Other Pollutants Required by the RWQCB

Sample Location Name or Number	**Sample Location Latitude and Longitude**[(1)] (Decimal Degrees)
TBD	
TBD	

(1)SMARTS requires location in decimal degree to 5 decimal places

7.7.4.3 RWQCB Required Data Evaluation and Reporting

TBD

7.8 TRAINING OF SAMPLING PERSONNEL

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP). Training records of designated contractor sampling personnel are provided in Appendix K.

The stormwater sampler(s) and alternate(s) have received the following stormwater sampling training:

Name	**Training**
TBD	(List Training Courses)
	(List Training Courses)

The stormwater sampler(s) and alternates have the following stormwater sampling experience:

Name	**Experience**
TBD	(List stormwater sampling experience)
	(List stormwater sampling experience)

7.9 SAMPLE COLLECTION, PRESERVATION AND DELIVERY

Samples will be analyzed by (TBD):

Laboratory Name:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

ELAP Certification Number:

Samples will be delivered to the laboratory by:
Driven by Contractor ☐ Yes ☐ No

Picked up by Laboratory Courier	☐ Yes	☐ No
Shipped	☐ Yes	☐ No

An adequate stock of monitoring supplies and equipment for monitoring turbidity and will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, field meters, extra batteries; clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and Effluent Sampling Report (Appendix J) and Chain of Custody (CoC) forms provided in CSMP Attachment 1 "Chain of Custody Forms".

7.9.1 Sample Collection Methods

If possible, field teams will consist of two persons. Because of the unpredictability of storm events, and the requirement to sample within the first two hours of runoff, field crews must arrive at the monitoring sites before any significant stormwater runoff has been observed.

7.9.1.1 Detailed Grab Sample Collection Procedures for Each Monitoring Site

Inspect general conditions of the site. Note the conditions of the site at the time of sampling.

Once runoff is observed in the area to be sampled (sheet flow, drainpipe, or other stormwater conveyance), manually collect a water sample with a clean polypropylene collection device, or directly into sample container proved by laboratory.

Once sufficient water has been collected in the collection device, carefully pour the water into each of the laboratory sample bottles using a polypropylene funnel. Note: For collection of the oil and grease sample, a glass or metal funnel should be used.

After all water samples have been collected, clean equipment with a 2% Contrad (or equivalent) detergent solution, rinse off the polypropylene collection device and funnels with distilled water and towel dry to prepare for the next sampling event.

7.9.2 Field Measurement Methods

Certain grab samples will require field measurement of certain parameters. To accomplish this, pour a subsample of stormwater a clean plastic cup for field measurements. pH and electrical conductivity can be measured using hand-held devices. The devices will be calibrated prior to mobilization at the monitoring site. At some locations, colorimetric field test kits (e.g., HACH field kits) may be used to test for the presence of chlorine or detergents. Follow manufacturers' instructions on proper use of the test kits. The measurements will be recorded in field notes and on the chain-of-custody forms. The sub-sample will then be discarded following recording of the field measurements.

7.9.3 Sample Containers and Handling

Sampling procedures involving handling items that have direct contact with the samples (i.e., sampling container, container lid, etc.) will be performed in accordance with proper sample handling techniques designed to minimize contamination of the sample. Sampling personnel are required to wear clean powder-free nitrile gloves. If sampling with a two member team, one member of the field team shall be responsible for sample collection and will change gloves between sample collections, or when the gloves have come in contact with any potential source of contamination. The other field team member will be responsible for cleaning of sampling equipment and all other activities that do not involve handling items that have direct

contact with the sample. If one person is collecting and documenting all samples, care shall be taken to not cross-contaminate or introduce contaminates to samples.

7.9.4 Forms and Procedures for Documenting Sample Collection and Field Measurements

The following forms are to be completed during each storm monitoring event at each site:

- Monitoring checklist
- Non-Visible Pollutant Monitoring Report.
- Chain-of-custody form (other copies will be retained by the laboratory)

Copies of these forms are included in Appendix J.

7.9.5 Laboratory Communication Procedures

Staff will contact the analytical laboratory 24 hours before the anticipated beginning of the storm event. The laboratory will be instructed to prepare sample bottles for use at the monitoring sites and to prepare for receipt of samples during and following the storm event.

7.9.6 Sample Shipping/Delivery and Chain of Custody

After grab samples are collected, staff is responsible for delivery of grab samples to the analytical laboratory as soon as possible to meet sample holding time requirements. If samples are to be analyzed for bacteria, they must be delivered to the laboratory within six hours of sample collection. Samples for all other analyses should be delivered within 24 hours of collection. The laboratory should be notified of estimated time of delivery and be alerted when weekend delivery is required. The following list outlines the packaging and shipping procedures for pick-up:

- Assemble and package all sample bottles in an orderly and secure manner for delivery to the laboratory.
- Verify information on the chain-of-custody form completed by the field crew on a cooler-by-cooler basis.
- If multiple coolers contain bottles from the same station, indicate this on all related forms.
- Use military time (i.e., 2 p.m. = 1400 hours) for all entries.
- If necessary, re-pack coolers with ice to keep samples cool and to prevent breakage.
- Place the completed chain-of-custody form in a re-sealable bag and place the form in the cooler with the bottles.
- Pack any sampler bottles to be cleaned for delivery to lab.

7.9.7 Sample Preservation and Filtration

During collection of grab samples, the field teams will:

- Seal sample bottles in re-sealable plastic bags.
- Place them in a cooler.
- Pack the cooler with ice in order to preserve the samples below 4 degrees Celsius.
- Once samples are at the laboratory, they will be refrigerated until analysis.

Sample filtration and/or preservative may be required for some analyses, including dissolved metals. Because of contamination concerns, this will be performed in the laboratory in accordance with procedures specified by the appropriate analytical method.

7.10 QUALITY ASSURANCE AND QUALITY CONTROL

An effective Quality Assurance and Quality Control (QA/QC) plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- CoCs;
- QA/QC Samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

7.10.1 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the “Effluent Sampling Report”. A “BMP Inspection Report” and “Effluent Sampling Report”, are included in Appendix J.

7.10.2 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. Adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

7.10.3 Chain of Custody

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in CSMP Attachment 1 “Chain of Custody Forms”.

7.10.4 QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

Table 7.17 QA/QC Sample Frequency

QA/QC Sample Type	Sampling Frequency
Equipment Blanks	Will be collected from polypropylene grab sampling equipment prior to the sampling season.
Field Duplicates	Will be collected for 10% of the total number of samples collected.
Laboratory Duplicates	Will be collected for 10% of the total number of samples collected.
Matrix Spike/ Matrix Spike Duplicates	Will be collected for 10% of the total number of samples collected.
Method Blanks	Will be run with each QC batch analyzed by the laboratory.

7.10.4.1 Field Duplicates

Field duplicates will collected and analyzed for 10% or the total number of grab samples collected. Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples shall be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusion.

7.10.4.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment that has been cleaned after use at a contaminated site;
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

7.10.4.3 Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ioninzed water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

7.10.4.4 Travel Blanks

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. De-ioninzed water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

7.10.5 Data Verification

After results are received from the analytical laboratory, the QSP shall verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification shall include:

- Check the CoC and laboratory reports.
  Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.
  Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. The QSP should especially note data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.
- Check laboratory QA/QC results.
  EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. The QSP shall evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.
- Check the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate.
  Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Check field logs to make sure all required measurements were completed and appropriately documented;
- Check reported values that appear out of the typical range or inconsistent;
  Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the field logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

7.11 DATA MANAGEMENT AND REPORTING

7.11.1 Analytical Data Validation

Results of precision and accuracy and contamination checks will be reviewed after each storm event. In the event that data quality objectives are not met, data will be qualified and documented as necessary.

- Data collected from the laboratory will be validated through the following procedures:
- Review hard copy data package;
- Compare chain-of-custody forms to logbooks and laboratory data reports to ensure successful data transfer;
- Ensure that laboratory reports are complete;
- Ensure that there are no typographical errors or incongruities in the data;
- Compare QA/QC results with data quality objective criteria;
- Tabulate and analyze the success rate of each QA/QC parameter; and
- Document and report out-of-range values.

7.11.2 Electronic Data Transfer

Data from the laboratory will be delivered in hard copy and electronic format. Both data packages will include:

- A narrative of any problems, corrections, anomalies, and conclusions; and
- Results/summary of QA/QC elements, including:
    - sample extract and analysis dates
    - method blanks, laboratory control spikes, and matrix spikes
    - analytical accuracy
    - analytical precision
    - reporting limits

Section 8 References

Project Plans and Specifications No. (TBD) dated (TBD), prepared by Moffatt & Nichol.

Port of San Diego Jurisdictional Runoff Management Program, June 2015.

San Diego Unified Port District Stormwater Management and Discharge Control Ordinance (Article 10)

State Water Resources Control Board (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Stormwater Discharge Associated with Construction and Land Disturbing Activities.
Available on-line at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

State Water Resources Control Board (2010). Order 2010-0014-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Stormwater Discharge Associated with Construction and Land Disturbing Activities.
Available on-line at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

CASQA 2009, *Stormwater BMP Handbook Portal: Construction*, November 2009, www.casqa.org

Port of San Diego, *BMP Design Manual*, February 2016.

San Diego County Copermittees, *San Diego Bay Watershed Management Area Analysis*, April 2015

PORT OF SAN DIEGO
STORMWATER QUALITY MANAGEMENT PLAN
FOR PRIORITY DEVELOPMENT PROJECT (PDP)

PROJECT NAME: BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT
PROJECT NUMBER: _____
PROJECT ADDRESS: 206 MARINA PARKWAY

DATE: OCTOBER 2016

CA CIVIL ENGINEER STAMP AND SIGNATURE:

PREPARED FOR:
SAN DIEGO SYMPHONY ORCHESTRA
1245 SEVENTH AVENUE
SAN DIEGO, CA 92101

PREPARED BY:
MOFFATT & NICHOL
1660 HOTEL CIRCLE NORTH, SUITE 500
SAN DIEGO, CA 92108

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ACRONYM SHEET

BMP	Best Management Practice
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project
PE	Professional Engineer
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
SWQMP	Storm Water Quality Management Plan

PDP SWQMP PREPARER'S CERTIFICATION PAGE

Project Name: Bayside Performance Park Enhancement Project
Permit Application Number: [Insert Permit Application Number]

PREPARER'S CERTIFICATION

I hereby declare that I am the Engineer in Responsible Charge of design of storm water best management practices (BMPs) for this project, and that I have exercised responsible charge over the design of the BMPs as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the PDP requirements of the Port of San Diego BMP Design Manual, which is a design manual for compliance with local Port of San Diego and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100) requirements for storm water management.

I have read and understand that the Port of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the Port of San Diego BMP Design Manual. I certify that this PDP SWQMP has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this PDP SWQMP by the Port of San Diego is confined to a review and does not relieve me, as the Engineer in Responsible Charge of design of storm water BMPs for this project, of my responsibilities for project design.

_____
Engineer of Work's Signature, PE Number & Expiration Date

_Victor Tirado_____
Print Name

_Moffatt & Nichol_____
Company

_October 2016_____
Date

Engineer's Seal:

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PDP SWQMP PROJECT APPLICANT CERTIFICATION PAGE

Project Name: Bayside Performance Park Enhancement Project
Permit Application Number: [Insert Permit Application Number]

PROJECT APPLICANT'S CERTIFICATION

This PDP SWQMP has been prepared for San Diego Symphony Orchestra by Moffatt & Nichol. The PDP SWQMP is intended to comply with the PDP requirements of the Port of San Diego BMP Design Manual, which is a design manual for compliance with local Port of San Diego and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. 2013-0001, as amended by Orders No. R9-2015-0001 and No. R9-2015-0100) requirements for storm water management.

The undersigned, while it owns the subject project, is responsible for the implementation of the provisions of this plan. This includes:

- **Installation of storm water BMPs,**
- **Verification of installed BMPs pursuant to the Port of San Diego's project closeout procedures,**
- **Maintenance of BMPs annually or more frequently when necessary to maintain BMP capacity,**
- **Annual verification of BMP maintenance pursuant to the Port of San Diego's maintenance documentation/verification requirements.**

If the undersigned transfers its interests in the property, its successor-in-interest shall bear the aforementioned responsibility to implement the best management practices (BMPs) described within this plan, including ensuring on-going operation and maintenance of structural BMPs. A signed copy of this document shall be available on the subject property into perpetuity.

Signature 1: Pre-Construction *Project applicant's signature is required prior to approval of the SWQMP.*		
Project Applicant's Signature:		
Print Project Applicant's Name: Martha Gilmer	Company Name: San Diego Symphony Orchestra Association	Date:

Signature 2: Post-Construction *Project applicant's signature is required for project closeout.*		
Project Applicant's Signature:		
Print Project Applicant's Name: Martha Gilmer	Company Name: San Diego Symphony Orchestra Association	Date:

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CONSTRUCTION CHANGE RECORD

During construction of the project, any changes that affect the design of storm water management features must be reviewed and approved by the Port of San Diego. This might include changes to drainage patterns that occurred based on actual site grading and construction of storm water conveyance structures, or substitutions to storm water management features. The storm water management design must be revisited to ensure the revised project layout and features meet the requirements of the BMP Design Manual and the MS4 Permit.

Design changes must be reviewed and approved by the Engineer of Record and the Port of San Diego prior to continuing construction.

Use this Table to keep a record of changes that occur during construction.

Construction Change Number	**Date of Approval**	**Summary of Changes**

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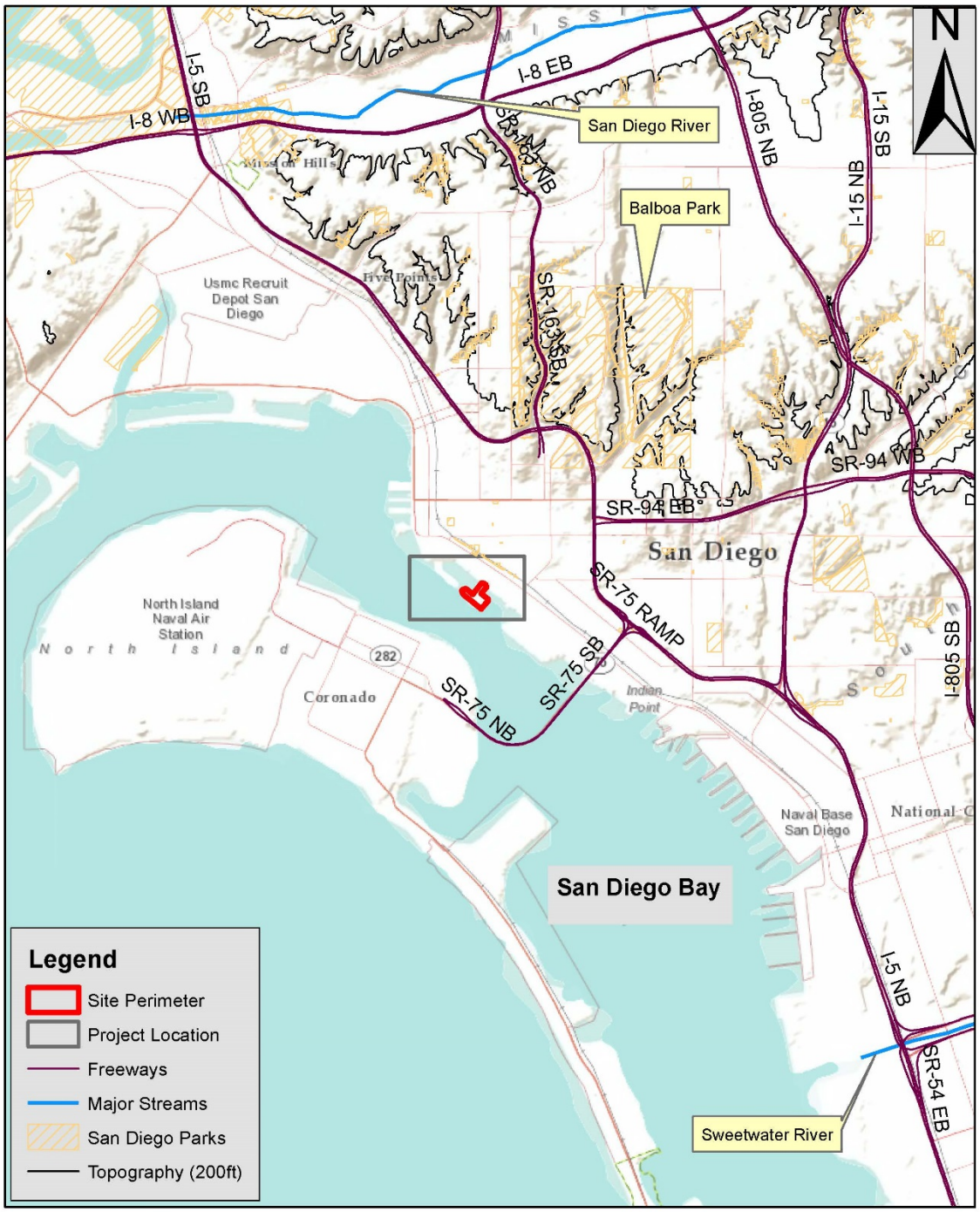
PROJECT VICINITY MAP

Project Name: Bayside Performance Park Enhancement Project
Permit Application Number: TBD



moffatt & nichol

Vicinity Map Checklist

The Vicinity Map must identify:

☒ Major roadways, geographic features or landmarks

☒ Site perimeter

☒ Geographic features

☒ General topography

☒ Downstream receiving water body

☒ Scale

☒ North arrow

Applicability of Permanent, Post-Construction Storm Water BMP Requirements **(Storm Water Intake Form for all Development Permit Applications)**	**Form I-1**
Project Identification	
Project Name: Bayside Performance Park Enhancement Project	
Permit Application Number:	Date: October 2016
Project Address: 206 Marina Parkway San Diego, CA 92101	

Determination of Permanent, Post-Construction Requirements

The purpose of this form is to identify permanent, post-construction requirements that apply to the project. This form serves as a short summary of applicable requirements, in some cases referencing separate forms that will serve as the backup for the determination of requirements.

Answer each step below, starting with Step 1 and progressing through each step until reaching "Stop". **Upon reaching a Stop, do not complete further Steps beyond the Stop.**

Refer to Port BMP Design Manual sections and/or separate forms referenced in each step below.

Step	Answer	Progression
Step 1: Is the project a "development project"? See Section 1.3 of the BMP Design Manual for guidance.	☒Yes	Go to Step 2.
	☐ No	Stop. Permanent BMP requirements do not apply. No SWQMP will be required. Provide discussion below.
Step 2: Is the project a Standard Project, Priority Development Project (PDP), or exception to PDP definitions? To answer this item, see Section 1.4 of the BMP Design Manual *in its entirety* for guidance, AND complete Form I-2, Project Type Determination.	☐ Standard Project	Stop. Only Standard Project requirements apply, including Standard Project SWQMP.
	☒PDP	Standard and PDP requirements apply, including PDP SWQMP. Go to Step 3.
	☐ Exception to PDP definitions	Stop. Standard Project requirements apply, and any additional requirements specific to the type of project. Provide discussion and list any additional requirements below. Prepare Standard Project SWQMP.

Step 3 (PDPs only). Is the project subject to earlier PDP requirements due to a prior lawful approval? See Section 1.10 of the BMP Design Manual for guidance.	☐ Yes	Consult the Port of San Diego to determine requirements. Provide discussion and identify requirements below. Go to Step 4.
	☒ No	BMP Design Manual PDP requirements apply. Go to Step 4.
Step 4 (PDPs only). Do hydromodification flow control requirements apply? See Section 1.6 of the BMP Design Manual for guidance.	☐ Yes	PDP structural BMPs required for pollutant control (Chapter 5) and hydromodification flow control (Chapter 6). Stop.
	☒ No	Stop. PDP structural BMPs required for pollutant control (Chapter 5) only. Provide brief discussion of exemption to hydromodification control below.
Discussion / justification if hydromodification control requirements do <u>not</u> apply: The project meets exempt criteria i, ii and iii; as indicated in the Port of San Diego BMP Design Manual, Section 1.6 Applicable Hydromodification Management Requirements. The San Diego Bay is a receiving water exempt from hydromodification management requirements based on the Regional MS4 Permit.		
Note: No potential critical coarse sediment yield areas have been identified within Port of San Diego jurisdiction. Therefore, when hydromodification management requirements apply, only the flow control requirements apply.		

Applicability of Construction Phase Storm Water Requirements **(Storm Water Intake Form for all Development Permit Applications)**	**Form I-1b**
Project Identification	
Project Name: Bayside Performance Park Enhancement Project	
Permit Application Number:	Date: October 2016
Project Address: 206 Marina Parkway San Diego, CA 92101	
Determination of Requirements	
The purpose of this form is to identify construction phase storm water requirements that apply to the project. If the answer to question 1 below is "Yes", your project is subject to the General Construction Activities Permit and will be required to submit Permit fees, a completed Notice of Intent to comply with the Permit and submit a **Storm Water Pollution Prevention Plan (SWPPP) for Projects Greater Than 1 Acre** to the Port. If the answer to question 1 below is "No", but the answer to question 2 or 3 is "yes", you must prepare a Port Construction BMP Plan for projects less than 1 acre. If the answer to questions 4 or 5 is "Yes" then BMPs will be required but a document submittal will not be required. If every question below is answered "No", no additional storm water documentation is required.	

Would the project meet any of these criteria during construction?		
1. Will this project include clearing, grading, or disturbances to ground such as stockpiling, or excavation that results in soil disturbances of at least one acre total land area?	☒Yes	☐ No
2. Does the project propose pavement resurfacing, grading or soil disturbance greater than 100 square feet?	☒Yes	☐ No
3. Will the project occur over or within a receiving water?	☒Yes	☐ No
4. Would storm water or urban runoff have the potential to contact any portion of the construction area, including washing and staging areas?	☒Yes	☐ No
5. Would the project use any construction materials that could negatively affect water quality if discharged from the site (such as paints, solvents, concrete, and stucco)?	☒Yes	☐ No

Note: The Port requires the use of Port SWPPP and Construction BMP Plan templates. The templates are available on the Port website http://www.portofsandiego.org/environment/stormwater/838-swppp-templates.html or, to request a copy, please contact Planning & Green Port at (619) 686-6254.

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Project Type Determination Checklist			Form I-2
Project Information			
Project Name: Bayside Performance Park Enhancement Project			
Permit Application Number:			Date: October 2016
Project Address: 206 Marina Parkway San Diego, CA 92101			
Project Type Determination: Standard Project or Priority Development Project (PDP)			
The project is (select one): ☐ New Development ☒ Redevelopment			
The total proposed newly created or replaced impervious area is: 322,341 ft^2 (7.40) acres			
Is the project in any of the following categories, (a) through (f)?			
Yes ☐	No ☒	(a)	New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.
Yes ☒	No ☐	(b)	Redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site on an existing site of 10,000 square feet or more of impervious surfaces). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.
Yes ☒	No ☐	(c)	New and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site), and support one or more of the following uses: (i) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification (SIC) code 5812). (ii) Hillside development projects. This category includes development on any natural slope that is twenty-five percent or greater. (iii) Parking lots. This category is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce. (iv) Streets, roads, highways, freeways, and driveways. This category is defined as any paved impervious surface used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

Form I-2 Page 2			
Yes ☐	No ☒	(d)	New or redevelopment projects that create and/or replace 2,500 square feet or more of impervious surface (collectively over the entire project site), and discharging directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). *Note: ESAs are areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Board and San Diego Water Board; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Board and San Diego Water Board; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees. See BMP Design Manual Section 1.4.2 for additional guidance.*
Yes ☐	No ☒	(e)	New development projects, or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, that support one or more of the following uses: (i) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539. (ii) Retail gasoline outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.
Yes ☒	No ☐	(f)	New or redevelopment projects that result in the disturbance of one or more acres of land and are expected to generate pollutants post construction. *Note: See BMP Design Manual Section 1.4.2 for additional guidance.*

Does the project meet the definition of one or more of the Priority Development Project categories (a) through (f) listed above?

☐ No – the project is <u>not</u> a Priority Development Project (Standard Project).

☒ Yes – the project is a Priority Development Project (PDP).

The following is for redevelopment PDPs only:

The area of existing (pre-project) impervious area at the project site is: _155,508_ ft^2 (A)
The total proposed newly created or replaced impervious area is _322,341_ ft^2 (B)
Percent impervious surface created or replaced (B/A)*100: _207___%
The percent impervious surface created or replaced is (select one based on the above calculation):

☐ less than or equal to fifty percent (50%) – only new impervious areas are considered PDP

OR

☒ greater than fifty percent (50%) – the entire project site is a PDP

Site Information Checklist For PDPs	Form I-3B (PDPs)

Project Summary Information

Project Name Bayside Performance Park Enhancement Project		
Project Address 206 Marina Parkway San Diego, CA 92101		
Permit Application Number		
Project Hydrologic Unit Select One:	Project Hydrologic Area Select One:	Project Hydrologic Subarea Select One When Applicable:
☒ Pueblo San Diego 908	☐ 908.10 Point Loma	
	☒ 908.20 San Diego Mesa	☒ 908.21 Lindbergh
		☐ 908.22 Chollas
	☐ 908.30 National City	☐ 908.31 El Toyon
		☐ 908.32 Paradise
☐ Sweetwater 909	☐ 909.10 Lower Sweetwater	☐ 909.11 Telegraph
		☐ 909.12 La Nacion
☐ Otay 910	☐ 910.10 Coronado	
	☐ 910.20 Otay Valley	

Port Parcel Area (total area of Parcel(s) associated with the project)	_21.75__ Acres (___947,430__ Square Feet)
Area to be Disturbed by the Project (Project Area)	_10.80__ Acres (___470,444__ Square Feet)
Project Proposed Impervious Area (subset of Project Area)	_7.40___ Acres (___322,341_ Square Feet)
Project Proposed Pervious Area (subset of Project Area)	_3.40___ Acres (___148,103__ Square Feet)
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Parcel Area.	

Form I-3B Page 2 of 10
Description of Existing Site Condition
Current Status of the Site (select all that apply): ☒ Existing development ☐ Previously graded but not built out ☐ Demolition completed without new construction ☐ Agricultural or other non-impervious use ☐ Vacant, undeveloped/natural Description / Additional Information: The project site is an existing park.
Existing Land Cover Includes (select all that apply): ☒ Vegetative Cover ☒ Non-Vegetated Pervious Areas ☒ Impervious Areas Description / Additional Information: The project site is comprised of a parking lot, an access road, sidewalks, lawn, and planters.
Underlying Soil belongs to Hydrologic Soil Group (select all that apply): ☐ NRCS Type A ☐ NRCS Type B ☐ NRCS Type C ☒ NRCS Type D
Approximate Depth to Groundwater (GW): ☒ GW Depth < 5 feet ☐ 5 feet < GW Depth < 10 feet ☐ 10 feet < GW Depth < 20 feet ☐ GW Depth > 20 feet
Existing Natural Hydrologic Features (select all that apply): ☐ Watercourses ☐ Seeps ☐ Springs ☐ Wetlands ☒ None Description / Additional Information: There are no watercourses within the project boundary. The project is within San Diego Bay.

Form I-3B Page 3 of 10
Description of Existing Site Drainage Patterns
How is storm water runoff conveyed from the site? At a minimum, this description should answer: (1) Whether existing drainage conveyance is natural or urban; (2) Is runoff from offsite conveyed through the site? if yes, quantify all offsite drainage areas, design flows, and locations where offsite flows enter the project site, and summarize how such flows are conveyed through the site; (3) Provide details regarding existing project site drainage conveyance network, including any existing storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels; and (4) Identify all discharge locations from the existing project site along with a summary of conveyance system size and capacity for each of the discharge locations. Provide summary of the pre-project drainage areas and design flows to each of the existing runoff discharge locations. Describe existing site drainage patterns: 1. The existing drainage conveyance system is generally composed of urban surface runoff to catch basins or area drains. After the runoff is collected at these locations, it is conveyed directly into San Diego Bay. 2. No offsite runoff is conveyed through the site. 3. The existing site drainage conveyance network is comprised of surface sheet flow that is conveyed to catch basins and area drains through a series of curb and gutters. Once the system is directed underground via catch basins and area drains, the system is conveyed into San Diego bay via a network of reinforced concrete pipes. These pipes flow freely into the bay without any form of pretreatment before discharge. The system also lacks flap gates allowing high tides to reverse flow upland flooding parking lots during extreme events. There are no natural drainage courses or open channel flow within the project limits. 4. Please refer to the Storm Drain Plans, sheets 1-5.

Form I-3B Page 4 of 10
Description of Proposed Site Development
Project Description / Proposed Land Use and/or Activities: The San Diego Symphony proposes to redevelop the Embarcadero Marina Park South with the vision to enhance public access to the existing park and provide a welcoming venue for residents and visitors. The Project proposes to construct an iconic, high performance acoustical shell with a 4,800 sf stage, storage rooms, green rooms (with dressing rooms and restrooms), and ADA access (integrated into backstage monument stairs and flexible seating options). Also proposed are reconfigurations to the existing basketball courts (along the south end of the park), the parking lot, and the lawn area.
List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features): - Parking lot reconfiguration - One new permanent ticket booth - One new performance venue acoustic shell - One new underground restroom and general purpose storage facility - Realignment of two basketball fields - Realignment of sidewalks throughout the site - Incorporation of artificial turf
List/describe proposed pervious features of the project (e.g., landscape areas): - Reconfiguration of lawn areas - One new decomposed granite pad - Reconfiguration of planters
Does the project include grading and changes to site topography? ☒ Yes ☐ No Description / Additional Information: The proposed Project seeks to maintain existing topography at the central parking lot and the eastern park, with minor modifications to grades to accommodate the modified parking area and the reconfiguration of the basketball court. However, on the western side of Marina Park the Project proposes to make major modifications to the existing topography. The Project proposes to raise grades in the center of the park from +16’ to +21’ NAVD88 to accommodate an underground restroom building in the center of the park. From the high point in the center of the park, the west side grades slope down at a general rate of 4% to an elevation of 13’ NAVD88 and the east side grades slope down at a rate of 8% to a proposed elevation of 13’ NAVD88 on the east side. On the west side, the grade changes to 1% until it reaches the existing elevation of +11’ NAVD88. The pad elevation for the proposed Symphony venue is set at +12’ NAVD88. On the east side the grade also changes to 0.5% sloping towards the center of the parking lot until it reaches the existing elevation of +11’ NAVD88.

Form I-3B Page 5 of 10

Description of Proposed Site Drainage Patterns

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

☒ Yes

☐ No

If yes, provide details regarding the proposed project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels, and the method for conveying offsite flows through or around the proposed project site. Identify all discharge locations from the proposed project site along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide a summary of pre- and post-project drainage areas and design flows to each of the runoff discharge locations. Reference the drainage study for detailed calculations.

Describe proposed site drainage patterns:

The project proposes to generally maintain existing surface runoff and collection points the same; aside of a couple of locations where new catch basins would need to be introduced. As shown on the Storm Drain Exhibit drawings U-1 through U-5, the intent of the project is to connect all new subgrade drainage systems into existing systems that ultimately outfall into the San Diego Bay. The project also proposes to introduce flap gates within the storm drain system within the development area however, the exact location of these flap gates has not yet been determined. The project will however, make an effort to install the flap gates in a matter as to not impact the rock revetments outside of the project footprint.

The proposed system will consist of City of San Diego standard catch basins, area drains, reinforced concrete pipes, flap gates, BMP features and, curb and gutters. There are no natural channels within the project footprint and there will be no open flow channels constructed for this project.

Form I-3B Page 7 of 10

Identification and Narrative of Receiving Water and Pollutants of Concern

Describe flow path of storm water from the project site discharge location(s), through urban storm conveyance systems as applicable, to receiving creeks, rivers, and lagoons as applicable, and ultimate discharge to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable):

At buildings, runoff will be collected in roof drains and directed to the underground stormwater conveyance system. Lawn areas and parking lots will drain as surface runoff to be collected by gutters and directed into storm drain catch basins and area drains with media filter inserts. Runoff will then be conveyed directly into the San Diego Bay.

The San Diego Bay is a 303(d) listed body of water for copper TMDL however; the San Diego Bay is currently not listed for sediment impairment and does not satisfy the criteria for beneficial uses as defined by the General Permit, therefore Receiving Water Risk for all District projects is currently considered low.

List any 303(d) impaired water bodies within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:

303(d) Impaired Water Body	Pollutant(s)/Stressor(s)	TMDLs / WQIP Highest Priority Pollutant
San Diego Bay Shoreline, at Marriott Marina	Copper	
San Diego Bay	Copper and PCBs	

Identification of Project Site Pollutants*

***Identification of project site pollutants is only required if flow-thru treatment BMPs are implemented onsite in lieu of retention or biofiltration BMPs (note the project must also participate in an alternative compliance program unless prior lawful approval to meet earlier PDP requirements is demonstrated)**

Identify pollutants expected from the project site based on all proposed use(s) of the site (see BMP Design Manual Appendix B.6):

Pollutant	Not Applicable to the Project Site	Expected from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment	x		
Nutrients		x	x
Heavy Metals		x	x
Organic Compounds		x	x
Trash & Debris		x	x
Oxygen Demanding Substances		x	x
Oil & Grease		x	x

Bacteria & Viruses	x		
Pesticides		x	x

Form I-3B Page 8 of 10

Hydromodification Management Requirements

Do hydromodification management requirements apply (see Section 1.6 of the BMP Design Manual)?

☐ Yes, hydromodification management flow control structural BMPs required.

☒ No, the project will discharge runoff directly to existing underground storm drains discharging directly to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.

☐ No, the project will discharge runoff directly to conveyance channels whose bed and bank are concrete-lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.

☒ No, the project will discharge runoff directly to an area identified as appropriate for an exemption by the WMAA for the watershed in which the project resides.

Note: No potential critical coarse sediment yield areas have been identified within Port of San Diego jurisdiction. Therefore when hydromodification management requirements apply, only the flow control requirements apply.

Description / Additional Information (to be provided if a 'No' answer has been selected above):

The project's stormwater and dry weather runoff flow into San Diego Bay which is identified as an exempt body of water as incorporated by the Copermittees into the Water Quality Improvement Plan.

Form I-3B Page 9 of 10
Flow Control for Post-Project Runoff*   ***This Section only required if hydromodification management requirements apply**
List and describe point(s) of compliance (POCs) for flow control for hydromodification management (see Section 6.3.1). For each POC, provide a POC identification name or number correlating to the project's HMP Exhibit and a receiving channel identification name or number correlating to the project's HMP Exhibit.
Has a geomorphic assessment been performed for the receiving channel(s)?   ☐ No, the low flow threshold is 0.1Q2 (default low flow threshold)   ☐ Yes, the result is the low flow threshold is 0.1Q2   ☐ Yes, the result is the low flow threshold is 0.3Q2   ☐ Yes, the result is the low flow threshold is 0.5Q2   If a geomorphic assessment has been performed, provide title, date, and preparer: Discussion / Additional Information: (optional)

Form I-3B Page 10 of 10
Other Site Requirements and Constraints
When applicable, list other site requirements or constraints that will influence storm water management design, such as zoning requirements including setbacks and open space, or local codes governing minimum street width, sidewalk construction, allowable pavement types, and drainage requirements. With underlying D soil and a high groundwater table, infiltration is not feasible at this site. Precautions of BMP installation depth is considered in the selection of permanent structural BMPs.
Optional Additional Information or Continuation of Previous Sections As Needed
This space provided for additional information or continuation of information from previous sections as needed.

Source Control BMP Checklist for All Development Projects (Standard Projects and Priority Development Projects)	Form I-4

Project Identification
Project Name: Bayside Performance Park Enhancement Project
Permit Application Number:

Source Control BMPs

All development projects must implement source control BMPs SC-1 through SC-6 where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual for information to implement source control BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the source control BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Source Control Requirement	Applied?		
SC-1 Prevention of Illicit Discharges into the MS4	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-1 not implemented:			
SC-2 Storm Drain Stenciling or Signage	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-2 not implemented:			
SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-3 not implemented:			
SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-4 not implemented:			

Source Control Requirement	Applied?

SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-5 not implemented:			
SC-6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below)			
☒ On-site storm drain inlets	☒ Yes	☐ No	☐ N/A
☐ Interior floor drains and elevator shaft sump pumps	☐ Yes	☐ No	☒ N/A
☐ Interior parking garages	☐ Yes	☐ No	☒ N/A
☐ Need for future indoor & structural pest control	☐ Yes	☐ No	☒ N/A
☒ Landscape/Outdoor Pesticide Use	☒ Yes	☐ No	☐ N/A
☐ Pools, spas, ponds, decorative fountains, and other water features	☐ Yes	☐ No	☒ N/A
☐ Food service	☐ Yes	☐ No	☒ N/A
☒ Refuse areas	☒ Yes	☐ No	☐ N/A
☐ Industrial processes	☐ Yes	☐ No	☒ N/A
☐ Outdoor storage of equipment or materials	☐ Yes	☐ No	☒ N/A
☐ Vehicle and Equipment Cleaning	☐ Yes	☐ No	☒ N/A
☐ Vehicle/Equipment Repair and Maintenance	☐ Yes	☐ No	☒ N/A
☐ Fuel Dispensing Areas	☐ Yes	☐ No	☒ N/A
☐ Loading Docks	☐ Yes	☐ No	☒ N/A
☒ Fire Sprinkler Test Water	☒ Yes	☐ No	☐ N/A
☒Miscellaneous Drain or Wash Water	☒ Yes	☐ No	☐ N/A
☒ Plazas, sidewalks, and parking lots	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for all "No" answers shown above. All sources marked as N/A will not be implemented on the project site.			

Site Design BMP Checklist for All Development Projects (Standard Projects and Priority Development Projects)	Form I-5

Project Identification

Project Name: Bayside Performance Park Enhancement Project

Permit Application Number:

Site Design BMPs

All development projects must implement site design BMPs SD-1 through SD-8 where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual for information to implement site design BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the site design BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project site has no existing natural areas to conserve). Discussion / justification may be provided.

Site Design Requirement	Applied?		
SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	☐ Yes	☐ No	☒ N/A
Discussion / justification if SD-1 not implemented: There are no natural drainage pathways on the project site.			
SD-2 Conserve Natural Areas, Soils, and Vegetation	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-2 not implemented:			
SD-3 Minimize Impervious Area	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-3 not implemented:			
SD-4 Minimize Soil Compaction	☐ Yes	☐ No	☒ N/A
Discussion / justification if SD-4 not implemented: The underlying soil at the site is of Soil Type D with a high groundwater table. Infiltration is not possible within the project area.			
SD-5 Impervious Area Dispersion	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-5 not implemented:			

Site Design Requirement	Applied?		
SD-6 Runoff Collection	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-6 not implemented:			
SD-7 Landscaping with Native or Drought Tolerant Species	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-7 not implemented:			
SD-8 Harvesting and Using Precipitation	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-8 not implemented:			

Summary of PDP Structural BMPs	Form I-6 (PDPs)
Project Identification	
Project Name: Bayside Performance Park Enhancement Project	
Permit Application Number:	
PDP Structural BMPs	
All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the Port BMP Design Manual). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). Both storm water pollutant control and flow control for hydromodification management can be achieved within the same structural BMP(s). PDP structural BMPs must be verified by the local jurisdiction at the completion of construction. This may include requiring the project applicant or project applicant's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the BMP Design Manual). PDP structural BMPs must be maintained in perpetuity and the local jurisdiction is required to confirm the maintenance (see Section 7 of the BMP Design Manual). Use this form to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (page 3 of this form) for each structural BMP within the project (copy the BMP summary information page as many times as needed to provide summary information for each individual structural BMP).	
Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate. The project site is a recreational park developed within the San Diego Bay. The underlying soil is hydraulic fill and has a high groundwater table, thus restricting the site's infiltration capability and runoff collection design depth. The existing drainage system has historically shown to back flow and flood parking areas and other low points within the site. The structural BMPs selected are intended to utilize the proposed grading to collect runoff at the low points, convey to flow through BMP's, and ultimately discharge to the Bay via the existing conveyance systems. Impervious surfaces will be dispersed using parking lot planters. By reducing stormwater runoff velocity, the flow through BMPs maximize their pollutant removal efficiency. In addition, the site has been design to reduce pollutant sources of fertilizers and pesticides by replacing the proposed venue lawn area with artificial turf.	

Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Vegetated Swales BMP No. 13 and 14	
Construction Plan Sheet No. Storm Drain Plans, Drawing U-3	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☒ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
Purpose: ☒ Pollutant control only ☐ Hydromodification control only ☐ Combined pollutant control and hydromodification control ☐ Pre-treatment/forebay for another structural BMP ☐ Other (describe in discussion section below)	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms	TBD; Refer to approved Operation and Maintenance Plan (O&M Plan) in Attachment 3.
Who will be the final owner of this BMP?	TBD; Refer to O&M Plan in Attachment 3.
Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Vegetated Swales BMP No. 13 and 14
Construction Plan Sheet No. Storm Drain Plans, Drawing U-3
Discussion (as needed): The vegetated swales are designed to remove storm water pollutants by filtering runoff and increasing the hydraulic residence time using check dams. They are located between parking lot rows to treat runoff from DMA 4 and DMA 5. The runoff from the vegetated swales would drain to catch basins equipped with media filters to be discharged to the San Diego Bay through the storm water conveyance system.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Media Filters BMP No. 10, 12, 15, and 16	
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☒ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
Purpose: ☒ Pollutant control only ☐ Hydromodification control only ☐ Combined pollutant control and hydromodification control ☐ Pre-treatment/forebay for another structural BMP ☐ Other (describe in discussion section below)	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms	TBD; Refer to O&M Plan in Attachment 3.
Who will be the final owner of this BMP?	TBD; Refer to O&M Plan in Attachment 3.
Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Media Filters BMP No. 10, 12, 15, and 16
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5
Discussion (as needed): Catch basins will be equipped with media filters as the final treatment BMP prior to discharge to the San Diego Bay. The media filters are designed to settle out and remove sediment and pollutants of concern. The treated runoff is ultimately discharged through the storm drain conveyance system.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Modular Wetlands BMP No. 11, 19, and 20	
Construction Plan Sheet No. Storm Drain Plans, Drawings U-2 and U-5	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☒ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
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Who will be the final owner of this BMP?	TBD; Refer to O&M Plan in Attachment 3.
Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Modular Wetlands BMP No. 11, 19, and 20
Construction Plan Sheet No. Storm Drain Plans, Drawings U-2 and U-5
Discussion (as needed): The Bio Clean Modular Subsurface Flow Wetland System (MSFWS) is a biofiltration system that treats runoff using a pretreatment chamber, biofiltration chamber, and a discharge chamber. The surface planting consists of native, drought tolerant species. The MSFWS remove debris, sediments, TSS, dissolved and particule metals and nutrients, bacteria, BOD, oxygen demanding substances, organic compounds, and hydrocarbons from DMA 5 and 6. The discharge chamber will tie into the storm drain conveyance system for discharge to the San Diego Bay.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Biofiltration Planters BMP No. 1, 2, 6, and 7	
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☒ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
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Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Biofiltration Planters BMP No. 1, 2, 6, and 7
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5
Discussion (as needed): Runoff will be conveyed to planters to increase hydraulic residence time and remove pollutants of concern. The planters will be designed as biofilters vegetated with drought tolerant species. Runoff pollutants will be removed as it infiltrates the mulch layer, media layer, and aggregate layer. Planters are proposed to in DMA 1, DMA 3, DMA 4, and DMA 7.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Permavoids BMP No. 5 and 8	
Construction Plan Sheet No. Storm Drain Plans, Drawing U-2	
Type of structural BMP: ☒ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
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Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Permavoids BMP No. 5 and 8
Construction Plan Sheet No. Storm Drain Plans, Drawing U-2
Discussion (as needed): Permavoid systems are proposed to be implemented at DMA 2 and DMA 3 below the surface of the artificial turf. These systems will enhance the existing drainage by capturing runoff within the respective DMAs and stored for reuse. Rainwater will be collected and conveyed to the perimeter vegetated strip for irrigation.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Bioswale BMP No. 4, 9, 17, and 18	
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☒ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
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Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Bioswale BMP No. 4, 9, 17, and 18
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5
Discussion (as needed): The surrounding promenade will be bounded by a bioswale. The bioswale will be comprised of drought tolerant species, a mulch layer, media layer, and underdrain system to treat runoff prior to entering the stormwater conveyance system.

Form I-6 Page 3 of X (Copy as many as needed)	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. Vegetated Strip BMP No. 3	
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☒ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
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Who will maintain this BMP into perpetuity?	TBD; Refer to O&M Plan in Attachment 3.
What is the funding mechanism for maintenance?	TBD; Refer to O&M Plan in Attachment 3.

Form I-6 Page 4 of X (Copy as many as needed)
Structural BMP ID No. Vegetated Strip BMP No. 3
Construction Plan Sheet No. Storm Drain Plans, Drawings U-1 through U-5
Discussion (as needed): The surrounding promenade will be bounded by a vegetated strip. The vegetated strip will be comprised of drought tolerant species, a mulch layer, and media layer to treat runoff prior to entering the stormwater conveyance system.

ATTACHMENT 1
BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

Indicate which Items are Included behind this cover sheet:

	Attachment Sequence	**Contents**	**Checklist**
REQUIRED	Attachment 1A	DMA Exhibit* See DMA Exhibit Checklist on the back of this Attachment cover sheet. *See Attachments 1F-Q for supporting documents	☒ Included
REQUIRED	Attachment 1B	Tabular Summary* of DMAs Showing DMA ID matching DMA Exhibit, DMA Area, and DMA Type *Provide table in this Attachment OR on DMA Exhibit in Attachment 1a	☒ Included on DMA Exhibit in Attachment 1a ☐ Included as Attachment 1b, separate from DMA Exhibit
REQUIRED *(unless the entire project will use infiltration BMPs)*	Attachment 1C	Form I-7, Harvest and Use Feasibility Screening Checklist Refer to Appendix B.3-1 of the BMP Design Manual to complete Form I-7.	☒ Included ☐ Not included because the entire project will use infiltration BMPs
REQUIRED *(unless the project will use harvest and use BMPs)*	Attachment 1D	Form I-8, Categorization of Infiltration Feasibility Condition Refer to Appendices C and D of the BMP Design Manual to complete Form I-8.	☒ Included ☐ Not included because the entire project will use harvest and use BMPs
REQUIRED	Attachment 1E	Pollutant Control BMP Design Worksheets / Calculations Refer to Appendices B and E of the BMP Design Manual for structural pollutant control BMP design guidelines	☒ Included

Use this checklist to ensure the required information has been included on the DMA Exhibit:

The DMA Exhibit must identify:

☒ Entire property included on one map (use key map if multi-sheets)
☒ BMP Sheet which includes the following (BMP type, size, dimensions for location, cross section and elevation detail); global positioning system coordinates of property
☒ Drainage areas and direction of flow
☒ Storm drain system(s)
☒ Nearby water bodies and municipal storm drain inlets
☒ Location and details of storm water conveyance systems (ditches, inlets, outlets, storm drains, overflow structures, etc.)
☒ Location of existing and proposed storm water controls
☒ Location of "impervious" areas – paved areas, buildings, covered areas
☒ Locations where materials would be directly exposed to storm water
☒ Location of building and activity areas (e.g., fueling islands, garages, waste container area, wash racks, hazardous material storage areas, etc.)
☐ Areas of potential soil erosion (including areas downstream of the project)
☐ Location of existing drinking water wells
☒ Location of existing vegetation to be preserved
☒ Location of LID landscaping features, site design BMPs
☒ Underlying hydrologic soil group
☐ Approximate depth to groundwater
☒ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
☒ Existing topography and impervious areas
☒ Existing and proposed site drainage network and connections to drainage offsite
☒ Proposed demolition
☒ Proposed grading
☒ Proposed impervious features
☒ Proposed design features and surface treatments used to minimize imperviousness
☒ Drainage management area (DMA) boundaries, DMA ID numbers, and DMA areas (square footage or acreage), and DMA type (i.e., drains to BMP, self-retaining, or self-mitigating)
☒ Potential pollutant source areas and corresponding required source controls (see BMP Design Manual Chapter 4 and Appendix E.1)
☒ Structural BMPs (identify location, type of BMP, and size/detail)

SOUTH EMBARCADERO

PUBLIC ACCESS PROGRAM

SAN DIEGO UNIFIED PORT DISTRICT
REAL ESTATE DEVELOPMENT-DEVELOPMENT SERVICES
3165 PACIFIC HIGHWAY
SAN DIEGO, CALIFORNIA 92101-1128
(619) 686-6291

MAY 26, 1998
Amended MARCH 2017 (includes Marriott, Convention Center Expansion and Bayside Performance Park Enhancements)
Revised 03/01/17

SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

Contents:

1. South Embarcadero Public Access Program, as amended ~~November 2012~~March 2017
2. Planning District 3 – Table A – Access and Recreation Components
3. South Embarcadero Public Access Map
4. Marriott Marina Terrace Activation
5. Bayside Performance Park Enhancements Public Access Map

1. South Embarcadero Public Access Program

The South Embarcadero Public Access Program defines and implements an extensive multi-modal pedestrian, bicyclist, mass-transit and automobile-based system to provide a variety of free and low-cost San Diego Bay waterfront public recreational opportunities for a broad range of individuals and families who reside in the region, as well as visitors. Access facilities will be constructed and maintained to be accessible to persons with disabilities.

The Embarcadero Promenade, which extends along 4,600 linear feet of San Diego Bay in Planning Subareas 34 (Tuna Harbor), 35 (Marina Zone), and 36 (Convention Way Basin), offers an unparalleled pedestrian California urban waterfront experience, including a commercial and naval harbor, working fisheries, two publicly accessible piers, three shoreline public parks, recreational boating and ferry/water taxi facilities, and many water-related commercial recreational enterprises. The 70,000 SF Promenade also serves to provide convenient non-automotive pedestrian linkages between and among the San Diego Convention Center, hotels, and other commercial recreation uses in the Planning Area. As a result of improvements made through the South Embarcadero Redevelopment Program (SERP) I Port Master Plan Amendment, the Promenade alone can readily accommodate 10,000 persons at one time, or 30-50,000 persons per day.

Along the inland boundaries of the Planning Area, Harbor Drive roughly parallels the Promenade and provides a diversified multi-modal corridor. In response to increasing public interest, a substantially enlarged and landscaped 10-foot wide urban sidewalk, as well as designated driveway crossings and a unified multi-language directional signage program, will be incorporated along the west side of Harbor Drive.

The Old Police Headquarters (OPH) 1.0-acre open space Urban Plaza, pedestrian linkages around and through the OPH, and activating uses along the west side of Kettner Blvd, along with the existing 0.7-acre open space plaza adjacent to the Hyatt tower, will connect Harbor Drive, between California Street and Kettner Blvd, with existing Embarcadero Marina Park North. The open space areas will create visual and physical linkages from the OPH to the 3.5-acre waterfront park across Pacific Highway, as well as link to enhanced pedestrian connections to and along the Embarcadero through Seaport Village and along Kettner Blvd. These parks will be improved with environmentally sustainable features to enhance family recreation opportunities, and other recreational and access support facilities, such as lighting, paths, fitness course, signs, restrooms, water, telephones, tables, seating, and trash disposal.

SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

The proposed Phase III Expansion to the Convention Center will include an approximately 5.0-acre rooftop park/plaza, approximately 50-100 feet above grade. The rooftop park/plaza will be accessible from at least six access points, including: the grand stairs and funicular at Harbor Drive, the grand stairs and elevator at the southwest corner of the rooftop park/plaza, elevators at the south midpoint of the rooftop park/plaza, the landscaped inclined walkway, and the elevator along Park Boulevard, as well as one access point from within the Convention Center. The rooftop park/plaza will include a mix of hardscape and landscape, including lawns, grasses, wildflowers, shrubs, trees, wetland plants; and pavilions and formal and non-formal gardens with lighted paths and fixed and movable furnishings. Observation vistas will be placed at opportune locations throughout the rooftop park/plaza to provide views to the Bay and uplands skyline. Support facilities such as restrooms and power and water service will also be provided.

Eleven public accessways 15 to 60 (minimum) feet wide, and comprising a total of 8,000 lineal feet, will directly connect the Harbor Drive walkway in the Planning Area with the Embarcadero Promenade: (1) on the north side of Tuna Harbor, (2) on the breakwater-pier on the south side of Tuna Harbor; (3) along the foot of Pacific Highway, (4) along the foot of California Street and south through the rehabilitated OPH building; (5) along the west side of Kettner Blvd, (6) along Pier Walk, from Market Street at Harbor to the Tuna Harbor Pier (7) along Market Plaza to the Embarcadero at Seaport Village East (8) along Marina Walk between the existing Marriott and Hyatt hotels; (9) through the canyon path between the Marriott Hotel and the existing Convention Center; (10) in the Skyward elevated access between Harbor Drive and Embarcadero Marina Park South at the junction of the existing and expanded convention center elements; and (11) from Park Boulevard Plaza along Park Boulevard to the waterfront. These connecting accessways are united with existing upland (City) sidewalks at Pacific Highway, California Street, Kettner Blvd, Market Street, Front Street-Childrens' Park-First Street, Fifth Avenue, and Park Boulevard (former Eighth Avenue). The connecting accessways on Port lands are, or will be, improved with a variety of access support and safety components as shown in Table A (page 4). No existing accessway will be reduced in size or functional capacity. Pedicab service, including designated holding areas, will be provided in conjunction with all public access, public recreational, and commercial recreational facilities, including the Convention Center, consistent with the capacity of existing and proposed accessways, and with pedestrian safety.

As redevelopment within the South Embarcadero occurs, additional opportunities to maximize and enhance public access will be incorporated. The Marriott hotel's reconstruction of its Marriott Hall ballroom and meeting facility will enable construction of Marina Walk, a joint, cohesive public accessway spanning both the Marriott and Hyatt leaseholds (#8 above). Public views and public pedestrian connectivity to the Bay will be significantly improved through relocation of the large cooling towers, removal of tall landscaping and underutilized surface parking, and leveling of the existing grade. Approximately one half of the Marina Walk length will be a total of 50 feet wide and will contain a 40-foot-wide public pedestrian access corridor and a 10-foot-wide landscape buffer to help screen the adjacent Hyatt parking structure. The 40-foot-wide public access corridor will include a 33.5-foot-wide dedicated pedestrian walkway, a 2-foot width for intermittent benches and lighting, and a 4.5-foot-wide landscape buffer with low-level, drought-resistant shrubs and groundcover that shall not exceed 3 feet in height. Adjacent to the existing approximately 10-foot-wide mechanical equipment enclosure on the

SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

Hyatt leasehold, the public access corridor may narrow to approximately 32 feet wide to allow for construction of a low-scale retaining wall and vine plantings to screen the enclosure. Marina Walk will contain amenities such as decorative paving, signage, public art features, low-level lighting, bicycle racks, benches, trash receptacles, a wheelchair accessible ramp, and restrooms open to the public during daylight hours. Marina Walk will widen to 80 feet as it approaches the Embarcadero promenade, and will widen to 145 feet at the Harbor Drive gateway to Marina Walk. At the project level, minor adjustments and revisions to the corridor, parking areas, and driveway may be made to increase the width of the walkway and improve connectivity between Marina Walk, Marina Terrace, and the Embarcadero promenade. Adjacent to this gateway, removal of the existing parking booths/gates and substantial narrowing of the entry drive (from 78 feet to 40 feet in width) will create a more inviting entrance and will encourage a more pedestrian-oriented environment. The Harbor Drive gateway area will be kept clear of physical barriers, signage, or visual obstructions that would discourage public use of Marina Walk. As part of the Marina Walk construction, the existing solid southeast façade of Sally's restaurant on the Hyatt leasehold will be partially replaced with windows, which will also improve public physical and visual access towards the Bay.

Visibility of Marina Walk will be improved through architectural treatment and orientation of the buildings on either side of the public accessway. The aesthetics and visual accessibility of the area will be enhanced through the use of contemporary, transparent architectural features and siting of the new Marriott Hall building, which will be reoriented such that its public side faces Harbor Drive. The maximum height of the new Marriott Hall shall not exceed 68 feet, including rooftop equipment and parapet wall, and the distance between the new Marriott Hall building and Hyatt parking structure shall be a minimum of 120.5 feet.

To further enhance and activate public access in the South Embarcadero, the Marriott proposes Marina Terrace, a 25,000-square-foot paved, flexible outdoor space at the bayward terminus of Marina Walk, adjacent to the Embarcadero promenade, to be accessible for use by the public as an open gathering and activity space when not in use for outdoor hotel events. During the times when Marina Terrace will be publicly accessible, approximately 85% of the year, the Marriott will provide and/or facilitate the provision of public pedestrian-activating amenities on Marina Terrace such as seasonal events/festivals, temporary visitor-serving retail such as food carts and food vendors, and placement of movable modular street furniture for public use on Marina Terrace. This modular furniture will include public benches, chairs, tables, and outside shade structures. At a minimum, the Marriott will ensure that permanent public seating is provided along the bayward perimeter of Marina Terrace. Six-foot-wide paved pedestrian accessways through the existing landscape buffer will ensure vertical pedestrian linkages between Marina Terrace and the Embarcadero promenade. Public pedestrian use of the Marina Terrace space will be further encouraged with consistent paving and low-level vegetation to help attract visitors along Marina Walk and the Embarcadero Promenade. To encourage interaction between the public spaces on Marina Terrace, Marina Walk, and the Embarcadero Promenade, the Marriott will promote and inform the public about various activities and pedestrian-serving amenities available at Marina Terrace through use of interchangeable signage and other methods of advertisement. In addition, Marriott will provide fixed picnic-type tables between Marina Terrace and the Embarcadero promenade on a permanent basis. See "Marriott Marina Terrace Activation" graphic for a potential concept of how Marina Terrace and the Embarcadero promenade can be activated through Marriott's placement of permanent tables and seating and

provision/facilitation of movable modular furniture and retail carts on Marina Terrace. The 35-space parking lot between Marina Walk and Marina Terrace shall be signed and designated for marina use (30 spaces) and public use (5 spaces).

Marriott's proposed improvements trigger its mandatory participation in the Port District's implementation of the permanent bayside shuttle system, discussed below. The bayside shuttle system will be operational prior to the opening of the Marriott Hall expansion, and Marriott's participation in the shuttle system will be a condition precedent to issuance of a certificate of occupancy for the proposed Marriott Hall expansion. To mitigate any potential parking shortfall that may result from the Marriott project, the Marriott is required to implement the parking management strategies as discussed in the South Embarcadero Parking Management and Monitoring Program (PMMP), as amended, which is incorporated by reference in the Port Master Plan.

The South Embarcadero Planning Area and immediately adjacent areas are presently served by publicly accessible automobile parking spaces, bicycle parking spaces, and three trolley and three bus stops. These spaces and transit stops will be maintained, although some may be relocated. To facilitate additional public recreational waterfront access opportunities, the Plan Amendment also provides for an additional water taxi landing at Tuna Harbor Pier (consistent with continued commercial fishing uses), additional automobile, new bicycle parking spaces and lanes, and three new bus stops along Harbor Drive (implementation of which will be in coordination with San Diego Transit). Throughout the South Embarcadero (G Street mole to the Hilton Bayfront Hotel), commercial development is also required to participate in and contribute a fair share to the Port District's implementation of a permanent bayside shuttle system that would serve and connect tideland uses along the waterfront, such as the Convention Center Hotel Public Parking Facility, hotels, Seaport Village, and other waterfront destinations. Although outside the South Embarcadero, the bayside shuttle should also provide service to the San Diego Aircraft Carrier Museum (USS Midway). In addition, this bayside shuttle system should include linkages to public roadside shuttle systems serving downtown San Diego, the airport, and MTS transportation hubs. Port District implementation of the bayside shuttle system is intended to serve visitors as part of an integrated waterfront access and parking program that the Port District shall pursue in conjunction with the City of San Diego, CCDC and MTS. The Port District will fund the bayside shuttle system at its cost and may seek cost recovery and financial participation consistent with its policies and practices and applicable laws. Cost recovery and financial participation may include: collection of fares, grants, advertising, voluntary tenant participation, mandatory tenant participation at the time of issuance of coastal development permits for Port District tenant projects within the South Embarcadero, and other sources as may be identified by the Port District. If rider fares are collected, fares will be kept at a low cost as compared to comparable transportation services within the region. The District will prepare a bayside shuttle system program and operational plan prior to the shuttle system commencing operations. Operation of the bayside shuttle system will occur as described in the Port Master Plan.

The unified public access directional and information signage program, as well as the environmental education signage program, are proposed to be expanded throughout the Planning Area, and to be augmented by works of public art. Substantial environmental education displays of San Diego's on-shore and off-shore coastal geology will be incorporated into the design of

public access ways.

As part of the redevelopment of South Embarcadero, the pier adjacent to the Hilton San Diego Bayfront will be publically accessible 85 percent of the year. Perimeter railings and seating will be extended onto the public access pier, which will also be made ADA accessible. Completion of the improvements to the public access pier will be complete prior to the issuance of the Certificate of Occupancy for the Hilton San Diego Bayfront Expansion.

Any construction activities in the South Embarcadero shall minimize impacts to public access, including access to public spaces such as parks and promenades.

The Bayside Performance Park Project, which is sited within approximately one-third of Embarcadero Marina Park South (EMPS), will enhance and activate public access in the South Embarcadero and further increase accessibility in EMPS by upgrading and modernizing public amenities and public access features. The project's proposed improvements include the construction of a permanent performance stage and ancillary amenities that will enhance cultural use of the park and improve a community gathering space. The Bayside Performance Park project also will create a more enjoyable park experience by enhancing public access. The existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park area (on the northwestern portion of EMPS) will be widened and replaced with a 12-foot-wide promenade to remain open to the general public at all times during regular park hours (open daily from 6:00 a.m. to 10:30 p.m.), and would remain open to the general public during all events held at the Bayside Performance Park. Public access wayfinding signage and public educational signage consistent with the unified public access directional and information and environmental education signage programs will be installed throughout EMPS. Light-emitting diode (LED) lighting will be installed to illuminate portions of the promenade and main access points, aid in night-time wayfinding, and create a safe environment for nighttime use of the park. All park amenities, with the exception of the performance stage, back-of-house facilities, and ancillary structures totaling approximately 13,015 square feet (0.29 acre), will be open to the general public when events are not being held. The promenade—both around the Bayside Performance Park and throughout the rest of EMPS—and fishing pier will remain open to the general public at all times during regular park hours and would remain open to the general public during all events held at the Bayside Performance Park. The promenade will continue to provide unlimited public access along the waterfront. Within the Bayside Performance Park, a public viewing deck and steps will be constructed on the backside (north) of the performance stage and would be accessible via the promenade. The viewing deck will remain open to the general public during certain events held at the Bayside Performance Park, depending on the programming and event type.

The Bayside Performance Park would be open to the general public for 85 percent of the year. Paid-admission performances and rental events at the Bayside Performance Park would be limited to a maximum of 15 percent of the year (equivalent to 110 half-day events or 55 full-day events). While access within the Bayside Performance Park will be exclusive to event patrons during event hours, the entire promenade and other portions of EMPS will remain open to the general public during regular park hours.

SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

The proposed Bayside Performance Park improvements also include enhanced recreational and support facilities, such as: 1) Replacement of the basketball courts with new basketball court materials and equipment; 2) Relocation of the existing fitness equipment with replacement, as necessary, new equipment and relocation to the southeastern portion of the park; 3) Refurbishment of the existing public outdoor gazebo with similar materials as existing; and 4) Refurbishment of the existing public restrooms on the southwestern portion of the park with new facilities and new materials that complement the materials of the other facilities. There will also be four new restroom facilities constructed on the northern portion of the park that will be open to the general public during all regular park hours.

SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

TABLE A - PLANNING DISTRICT 3, ACCESS AND RECREATION COMPONENTS

NAME	*LOCATION*	*MAP REF. NO.*	*SIZE/PARKING*	*USE TYPES*	*FACILITIES*
A. Promenade	Embarcadero	1	4600 LF	P,B,Rb,Ed,A:ha	VP,p,t,w,l,tl,b,tb,s
			70000 SF		
Segment 1	Laurel Broadway	2	5200 LF	P,B,Rb, Ed, A:ha	VP,p,l
			72800 SF		
Segment 2	Broadway Com	3	950 LF	P,B,Rb,Ed,A:ha	p,l
			3800 SF		
Segment 3	Tuna Harbor	4	800 LF	P,B,Rb,Ed,A:ha	VP,p,l
			11200 SF		
			200/85 Spaces		
Segment 4	Seaport Village	5	1100 LF	P,B,Rb,Ed,A:ha	VP,p,t,w,l,tl,b,tb,s
			15400 SF		
Segment 5	N Emb Mar Park	6	1600 LF	P,B,B/Ap,Rb:ha	VP,p,t,w,l,tl,b,tb,s
			22400 SF		
Segment 6	Kettner Blvd	7	1600 LF	P,B,Rb:ha	p,,w,l,tl,b,tb,s
	(includes 0.7 acre		32000 SF		
	Hyatt Plaza)				
Segment 7	Hyatt Hotel 1/2	8	600 LF	P,B,Rb,Ed,A:ha	VP,p,t,w,l,tl,b,tb,s
			48,000 SF		
			100 Spaces		
Segment 8	Marriott	9	600 LF	P,B,Rb,Ed,A:ha	p,t,w,l,tl,b,tb,s
			18000 SF		
Segment 9	S Emb Mar Park	10	4075 LF	P,B,B/Ap,Rb:ha	VP,p,t,w,l,tl,b,tb,s
			44500 SF		
			132 Spaces		
Segment 10	Conv Cntr/Exp	11	3350 LF	P,B,Rb,Ed,A:ha	VP,p,t,w,l,tl,b,tb,s
			37500 SF		
Segment 11	5th Ave Landing	12	1200 LF		
			7200 SF		
Segment 12	Campbell	13	700 LF		
			4200 SF		
B. Tuna Harbor	Harbor Drive	14	800 LF	P,B,Rb,Ed,A:ha	VP,p,t,w,l,tl,b,tb,s
			45000 SF		
			200/85		
C. Urban Plaza	South of side of Harbor Dr; North side of OPH	15		Plza,P,A:ha	p,t,w,l,tl,b,tb,s
			1 Acre		
D. Waterfront Park	S of Harbor Dr	16	See Seg. 3	Prk,P,Pg,B/Ap,A:ha	P,T,W,L,TL,B,TB,S
			3.5 Acres		
E. Pier Walk	W of Market St	17	1250 LF	P:ha	VP,p,t,w,l,tl,b,tb,s
			50000 SF		
F. Tuna Hrb Pier	W of Pier Walk	18	400LF	P,CF,WT:ha	VP,p,tl,s
			10000 SF		
G. N Emb Mar Pk	S of Central Pk	19	See Seg. 5	Prk, P,Pg,B/Ap,A:ha	VP,p,t,w,l,tl,b,tb,s
			10.7 Acres		
			87 Spaces		

Legend:

A=(public) Art	B=Bikepath	B/Ap=Bike/Auto parking	CF=Commercial Fishing
Ed=Envirn. Education	P=Pedestrian walkway	Pg=Playground	PLZA=Plaza
PRK=Park	Rb=Roller Blade Accessible	SA=Shaded Area Available	SF=Sport Fishing
VP=View Point	ha=handicapped accessible	l=lighting	p=path s=sign
sp=parking spaces	t=toilet facility	tb=table/benches	tl=telephone
w=water available			

NOTE: The data in this table is indicative rather than determinative (i.e., the numbers are approximations).

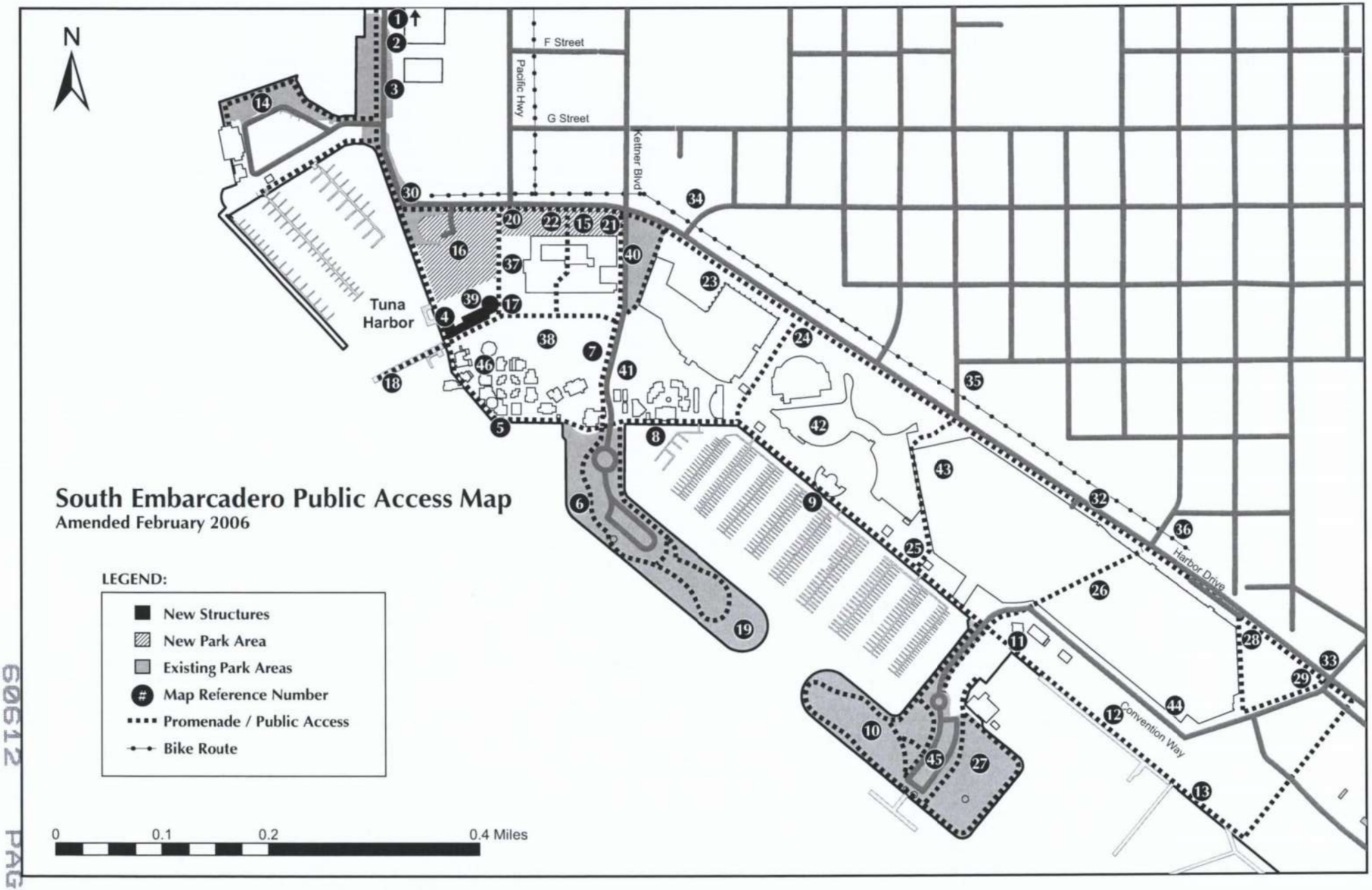
SOUTH EMBARCADERO PUBLIC ACCESS PROGRAM

TABLE A - PLANNING DISTRICT 3, ACCESS AND RECREATION COMPONENTS

NAME	*LOCATION*	*MAP REF. NO.*	*SIZE/PARKING*	*USE TYPES*	*FACILITIES*
H. Pacific Hwy.	S of Harbor Dr.	20	650 LF	P,B:ha	p,s,
			65000 SF		
I. Kettner Blvd.	S. of Harbor Dr.	21	900 x 2 LF	P,B:ha	p,s
			54000 SF		
			35 Spaces		
J. California	S. of Harbor Dr.	22	650 LF	P,B,A:ha	p,s
			32500 SF		
K. Harbor Dr.	Plaza Pk to 8th Ave.	23	4000 LF	P,B:ha	p,s
			40000 SF		
			18 Spaces		
L. Marina Walk	S. of Harbor Dr.	24	600 LF	Plz,P,B:ha	p,s
			36000 SF		
M. Access Cyn.	S. of Harbor Dr.	25	750 LF	P,A,Ed:ha	p,s,Ed
			7500 LF		
N. Skywalk	At CC/CCE	26	800 LF	P,Ed,A:ha	VP,p,s,l,b,tb
			16000 SF		
O. S Emb Mar Pk	S of Conv Cntr.	27	See Seg. 9	Prk,P,Pg,B/Ap,A:ha	VP,p,t,w,l,tl,b,tb,s
			12 Acres	SF	
P. Park Blvd Plaza	Harbor at Park	28	See Seg. 10	Plz,P,B/Ap,A:ha	p,s,t,w,l,tl,b,tb
			30000 SF		
Q. Transit Stops	BusStp @ Waterfront Pk	30	Bus turnout	P,B,Ed:ha	p,s
	BusStp @ Conv.	32	Bus turnout	P,B,Ed:ha	p,s
	BusStp @ 8th Ave.	33	Bus turnout	P,B,Ed:ha	p,s
	Trolley S @ Mkt.	34	NS/East Line	P,B,Ed:ha	p,s
	Trolley S @ 1st	35	NS/East Line	P,B,Ed:ha	p,s
	Trolley S @ 5th	36	NS/East Line	P,B,Ed:ha	p,s
R. Public Parking	Pacific Hwy.	37	40Spaces	B/Ap:ha	p,s
	SPV Main Lot	38	453 Spaces (493 w/ valet)	B/Ap:ha	p,s
	Waterfront Park/Pier Walk Bldg	39	172Spaces	B/Ap:ha	p,s
	Hyatt 2	40	100 Spaces	B/Ap:ha	p,s
	SPV East	41	124 Spaces (204 w/ valet)	B/Ap:ha	p,s
	Marriott	42	5 Spaces	B/Ap:ha	p,s
	Conv.Cntr.	43		B/Ap:ha	p,s
S. S Emb MarFP	S Emb Mar Pk	45	132 Spaces	P,SF,B:ha	VP,p,w,l,b,tb,s
T. Village Wlks	SPV (1978)	46		P,Plz,A,Ed:ha	l,p,Rb,SA,s,sp,t,tb,tl w
U. Conv Cntr Rftp	Rooftop of Conv Ctr Phase III Exp	47	5 Acres	PRK, P, ha, PLZA	VP, w, t, SA, l, tb

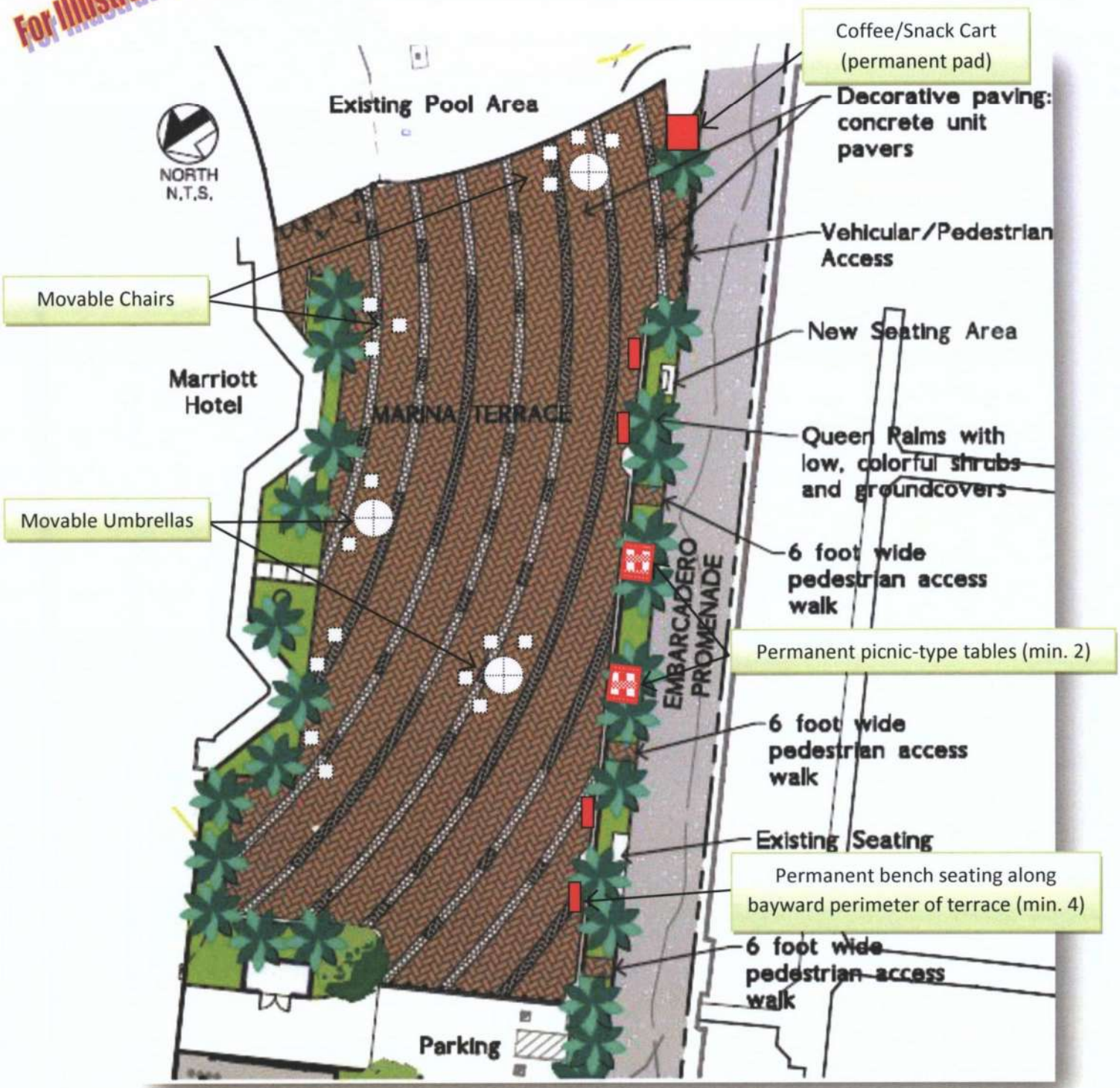
Legend:
A=(public) Art
Ed=Envirn. Education
PRK=Park
VP=View Point
sp=parking spaces
w=water available
B=Bikepath
P=Pedestrian walkway
Rb=Roller Blade Accessible
ha=handicapped accessible
t=toilet facility
B/Ap=Bike/Auto parking
Pg=Playground
SA=Shaded Area Available
l=lighting
tb=table/benches
CF=Commercial Fishing
PLZA=Plaza
SF=Sport Fishing
p=path s=sign
tl=telephone

NOTE: The data in this table is indicative rather than determinative (i.e., the numbers are approximations).


N
F Street
G Street
Pacific Hwy
Kettner Blvd
Tuna Harbor
Harbor Drive
Convention Way
South Embarcadero Public Access Map
Amended February 2006
LEGEND:
New Structures
New Park Area
Existing Park Areas
Map Reference Number
Promenade / Public Access
Bike Route
0
0.1
0.2
0.4 Miles

For Illustrative Purposes Only

Marriott Marina Terrace Activation



Movable modular furniture, including chairs and umbrellas, will be placed within the Marina Terrace area on a variable basis (amount and location dependant on day of week and weather conditions). A minimum of two (2) fixed picnic-type tables and four (4) fixed benches will be provided along the bayward perimeter of the terrace on a permanent basis. A pad will be established adjacent to the Embarcadero Promenade for placement of a temporary cart.

11/8/12

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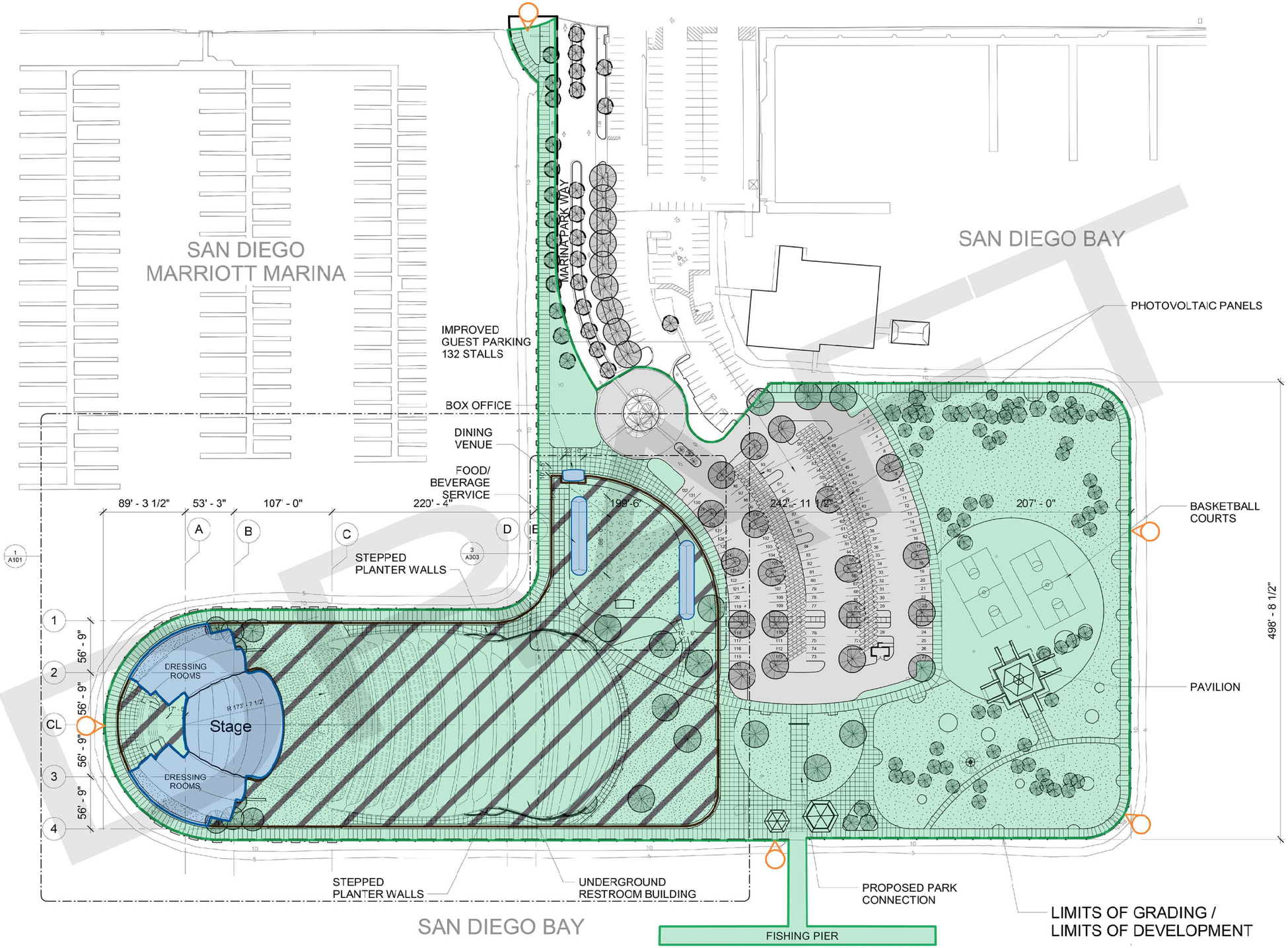

Blue shading is restricted to members of the public at all times

Solid shading signifies no public restrictions at any time during park hours

Hatched regions accessible to the public during non-event hours

Proposed signage locations

OVERALL EVENT SITE (1)
1" = 50'-0"
Graphic Scale: 1 inch = 50 feet
0 50' 100' 150' 200'

TUCKER SADLER
1620 5th Ave Suite 200 San Diego, Ca 92101
(P) 619 . 236 . 1662 (F) 619 . 236 . 9267

SAN DIEGO SYMPHONY

San Diego Symphony
Embarcadero Marina Park South
San Diego, Ca 92101
(P) (F)

BAYSIDE PERFORMANCE PARK ENHANCEMENT PROJECT

SHEET TITLE:
OVERALL SITE

PROJECT NUMBER: 21081.00

DATE: 08/12/15

SCALE: AS INDICATED

DRAWING NUMBER: A100

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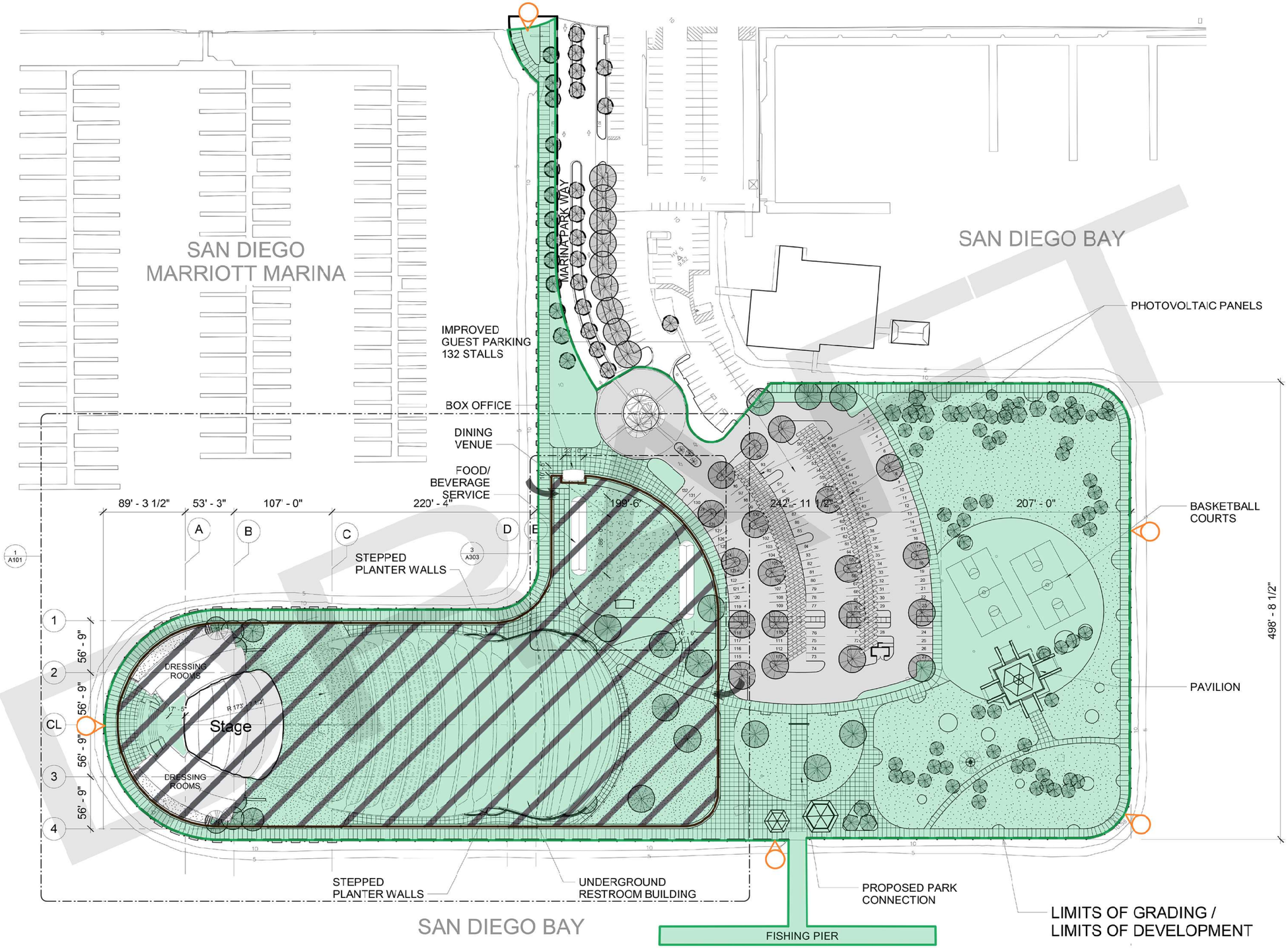

Solid shading signifies no public restrictions at any time during park hours

Hatched region reserved to ticket holders during event hours

Proposed signage locations

OVERALL EVENT SITE 1
1" = 50'-0"
Graphic Scale: 1 inch = 50 feet
0 50' 100' 150' 200'

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SHEET TITLE:
OVERALL SITE

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DATE: 08/12/15

SCALE: AS INDICATED
DRAWING NUMBER: A100

10/31/2016 4:10:10 PM

Noise Analysis for the Bayside Performance Park Enhancement Project and Port Master Plan Amendment San Diego, California

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June 9, 2017

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Reviewed and Approved by
William A. Maddux, Senior Noise Specialist

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Acronyms

ADT	average daily traffic
Applicant	San Diego Symphony
Caltrans	California Department of Transportation
City	City of San Diego
CNEL	community noise equivalent level
dB	decibel
dB(A)	A-weighted decibel
dB(A) $L_{eq(12hr)}$	12-hour equivalent A-weighted decibel
District	San Diego Unified Port District
EIR	Environmental Impact Report
EMPN	Embarcadero Marina Park North
EMPS	Embarcadero Marina Park South
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
L_{eq}	one-hour equivalent noise level
L_{max}	maximum sound level
L_{pw}	sound power level
mph	mile per hour
NASNI	Naval Air Station North Island
PMP	certified Port Master Plan
SANDAG	San Diego Association of Governments
SDIA	San Diego International Airport

Executive Summary

The Applicant, San Diego Symphony Orchestra (Symphony), proposes the Bayside Performance Park Enhancement Project and Port Master Plan Amendment (project), which includes public amenity enhancements at the Embarcadero Marina Park South and associated discretionary actions, including, without limitation, a Port Master Plan Amendment (PMPA) and a non-appealable Coastal Development Permit. The project entails development of a permanent venue for the Symphony at the Embarcadero Marina Park South (EMPS) in the city of San Diego, California, on tidelands under the jurisdiction of the San Diego Unified Port District (District). The project would replace the current practice of setting up and taking down a temporary stage each season for the Symphony's Bayside Summer Nights performances. The project site is a public park with grass areas, walkways, a gazebo, basketball courts, and fitness stations. The project proposes enhancement of park amenities and installation of a permanent performance stage, including a synthetic turf seating area, a box office, dressing rooms, restrooms, and food pavilions. This report discusses potential noise impacts from the construction and operation of the project. A summary of the analysis is provided below.

Construction Noise

The City of San Diego Noise Abatement and Control Ordinance and the City of Coronado Noise Abatement and Control Regulations both establish a construction noise level limit of 75 A-weighted decibels (dB[A]) hourly equivalent noise level (L_{eq}) at or beyond the property lines of any property zoned residential. The nearest residential land uses are multi-family residential uses located north of Harbor Drive, approximately 1,700 feet north of the proposed performance and event venue. Noise levels at the nearest residential land use would reach up to approximately 55 dB(A) L_{eq}. Noise impacts associated with project construction activities would be less than significant.

Operations Noise

When no events or rehearsals are occurring, noise sources associated with the site would include landscaping, pedestrians traversing the project site walkways, and activities associated with site features such as the basketball courts. The project would not substantially increase noise associated with these existing park activities. None of these noise sources is anticipated to violate the noise level limits of the City of San Diego's Noise Abatement and Control Ordinance or result in a substantial permanent increase in existing noise levels.

During events and rehearsals, noise sources would include vehicles arriving at or leaving from the project parking lot and amplified sound such as announcements and music associated with the event. Parking lot activities that generate noise include vehicles traveling to and from parking spaces, and brief noise instances associated with parking such as opening and closing car doors, engines starting, and car alarms. The project

parking lot would not exceed analysis screening criteria from the Federal Transit Authority's guidance manual. Therefore, the noise generated in the project parking lot does not warrant detailed analysis and would not result in significant impacts.

The primary source of potential noise would be from amplified sound. Noise from amplified sound equipment was assessed based on sound propagation modeling performed by the project acoustic design firm, Soundforms PLC. Without mitigation the project would result in noise levels that exceed limits from the City of San Diego Noise Abatement and Control Ordinance and/or the City of Coronado Noise Abatement and Control Regulations at several noise-sensitive receptors in both San Diego and Coronado. Mitigation measure (MM) NOI-1 requires the Applicant operate continuous noise measurement throughout events and rehearsals that include amplified sound and immediately reduce amplified noise levels if measured noise levels exceed specific criteria. With incorporation of MM NOI-1, noise levels would not exceed limits from the City of San Diego Noise Abatement and Control Ordinance or the City of Coronado Noise Abatement and Control Regulations at any land use except within Fifth Avenue Landing Park, San Diego Bayfront, and EMPS.

There is no feasible mitigation that would reduce noise levels within Fifth Avenue Landing Park, San Diego Bayfront, and EMPS below a level of significance without limiting public access or conflicting with the project objectives. Impacts to Fifth Avenue Landing Park, San Diego Bayfront, and EMPS would be significant and unavoidable.

As discussed in Section 5.2.2.2, without mitigation the project would result in perceptible noise level increases in EMPS, Fifth Avenue Landing Park, San Diego Bayfront Park, and at the Hilton San Diego Bayfront. Criteria outlined in MM NOI-1 would require a minimum 5 dB(A) reduction between maximum and hourly average noise levels during evening hours and a minimum 10 dB(A) reduction between maximum and hourly average noise levels during nighttime hours. In addition to noise level reductions required by MM NOI-1, criteria outlined in MM NOI-3 would require sound amplification to be limited to 9 hours of less per day, and MM NOI-4 would require sound amplification during evening (7:00 p.m. to 10:00 p.m.) rehearsals be limited to 100 minutes. With incorporation of MM NOI-1 and MM NOI-3, the community noise equivalent level (CNEL) increases would be lower than 3 dB(A) at Fifth Avenue Landing Park, San Diego Bayfront Park, and the Hilton San Diego Bayfront hotel on both event days and non-event days. Impacts from permanent noise level increases would be less than significant. With incorporation of MM NOI-1, MM NOI-3, and MM NOI-4 the project would continue to result in noise level increases at EMPS that are greater than 5 CNEL on event days; however, the project would no longer result in noise level increases that are greater than 5 CNEL on non-event days. Thus, incorporation of MM NOI-1, MM NOI-3, and MM NOI-4 would be anticipated to reduce the frequency that the project results in significant ambient noise level increases from 290 days per year to 116 days per year. Any single occurrence of a substantial noise level increase would be considered significant.

There is no feasible mitigation that would reduce noise levels increases at EMPS to below a level of significance without limiting public access or conflicting with the project objectives. Impacts to EMPS would be significant and unavoidable.

Traffic Noise

During events and rehearsals, traffic generated by the project would result in an increase in noise levels of less than 1 dB. A change of 5 dB(A) is readily perceptible to the human ear. Project-generated traffic would result in a lower than 5 CNEL increase along local roadways. Thus, project traffic would not result in a significant increase in traffic noise levels along local roadways.

1.0 Introduction

1.1 Project Description

The project site is located within Embarcadero Marina Park South (EMPS), Planning District 3, Centre City Embarcadero, as described by the certified Port Master Plan (PMP). The project includes public park enhancements within EMPS and associated discretionary actions, including a PMP Amendment and a non-appealable Coastal Development Permit. The PMP is the governing land use document for physical development under the jurisdiction of the San Diego Unified Port District (District). The project includes public amenity enhancements throughout the EMPS and the installation of a permanent performance stage within a portion of EMPS. The PMP Amendment would amend the Centre City Embarcadero Planning District Project List (Table 11 of the PMP) to include the project. The applicant is the San Diego Symphony Orchestra (Symphony or Applicant).

The project also includes a synthetic turf seating area, box office, dressing rooms, restrooms, and food pavilions within a portion of EMPS designated as the Bayside Performance Park, as defined by the lease area. Project construction would begin in October 2017 and would last approximately 8 months with an additional 1-2 months of testing. Once completed, the redeveloped 10.8-acre EMPS would comprise approximately 1.50 acres of public walkways, 2.22 acres of natural lawn, 2.36 acres of synthetic turf, 0.63 acre of permeable pavers, 1.04 acres of concrete pavers, and a 1.80-acre public parking lot. The performance stage would have a footprint of approximately 0.38 acre. The Bayside Performance Park area would cover approximately 3.47 acres of the EMPS, or approximately 32 percent of EMPS.

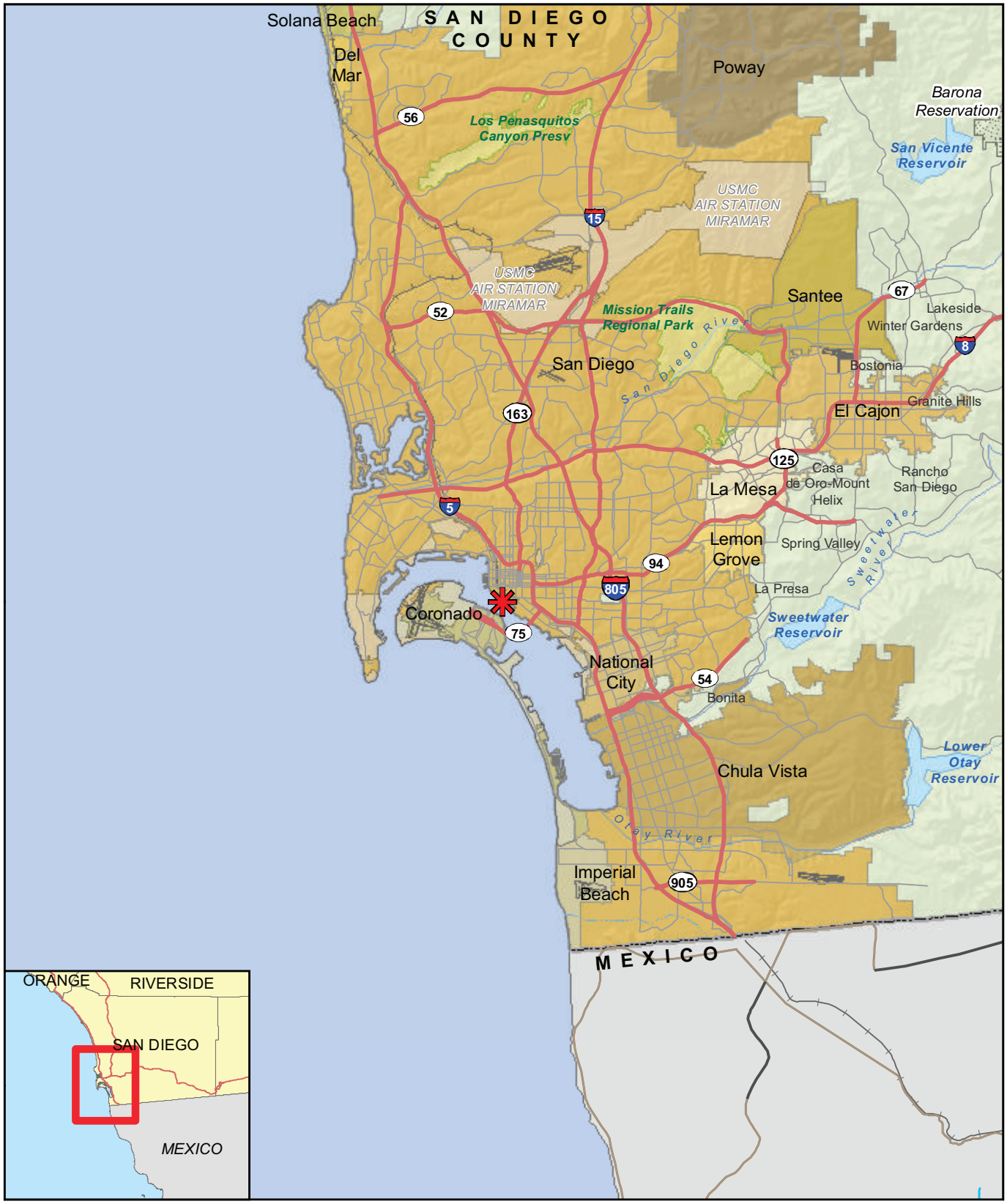
The project would replace a temporary concert venue that is set up each year for the Symphony's Bayside Summer Nights performances. Whereas the Tidelands Use and Occupancy Permit for the temporary concert venue limits noise levels that exceed a 95 dB soundboard noise level limit (i.e. 99 dB at the front of the stage), the Real Estate Agreement for the project would establish a 99 dB soundboard noise level limit. Additionally, the existing temporary venue accommodates up to 37 Bayside Summer Nights performances between June and September, with associated event rehearsals limited to the day of the event. Project programming for paid admission emission events would be limited to 110 half-day events or 55 full-day events per the conditions of a District-issued Real Estate Agreement for the Bayside Performance Park. Additional public events may also occur. Anticipated Bayside Performance Park programming includes up to 116 total events per year (includes 100 Symphony performances, partnership performances, and event rentals that are subject to the limitation of no more than 110 half-day events annually, plus 16 free public events and Education and Public Engagement Program events, which are not subject to limitation). Project rehearsals would be limited to one rehearsal on the day of the event, and 1.5 non-event day rehearsals. Rehearsals on the day of the event would be restricted to between the hours of 9:00 a.m. and 4:00 p.m. and would be restricted by the soundboard noise level limit of 99 dB(A). Rehearsals on non-event days would generally be limited to between the hours of 9:00 a.m. and 4:00 p.m. and would include up to 3 hours of sound

amplification. Additionally, the project would include up to 30 evening rehearsals per year. Non-event day evening rehearsals would be restricted to between the hours of 7:00 p.m. and 10:00 p.m. A reduced soundboard noise level limit of 94 dB(A) as measured at or beyond the front of stage for a 15-minute measure period would apply to all rehearsals on non-event days. Accounting for all paid admission events, public events, and rehearsals, the project is anticipated to increase the frequency of use of amplified sound equipment from approximately 37 days per year to 290 days per year.

Figure 1 shows the regional project location. Figure 2 shows an aerial photograph of the project vicinity. Figure 3 shows the proposed site plan.

1.2 Fundamentals of Noise

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.



Project Location

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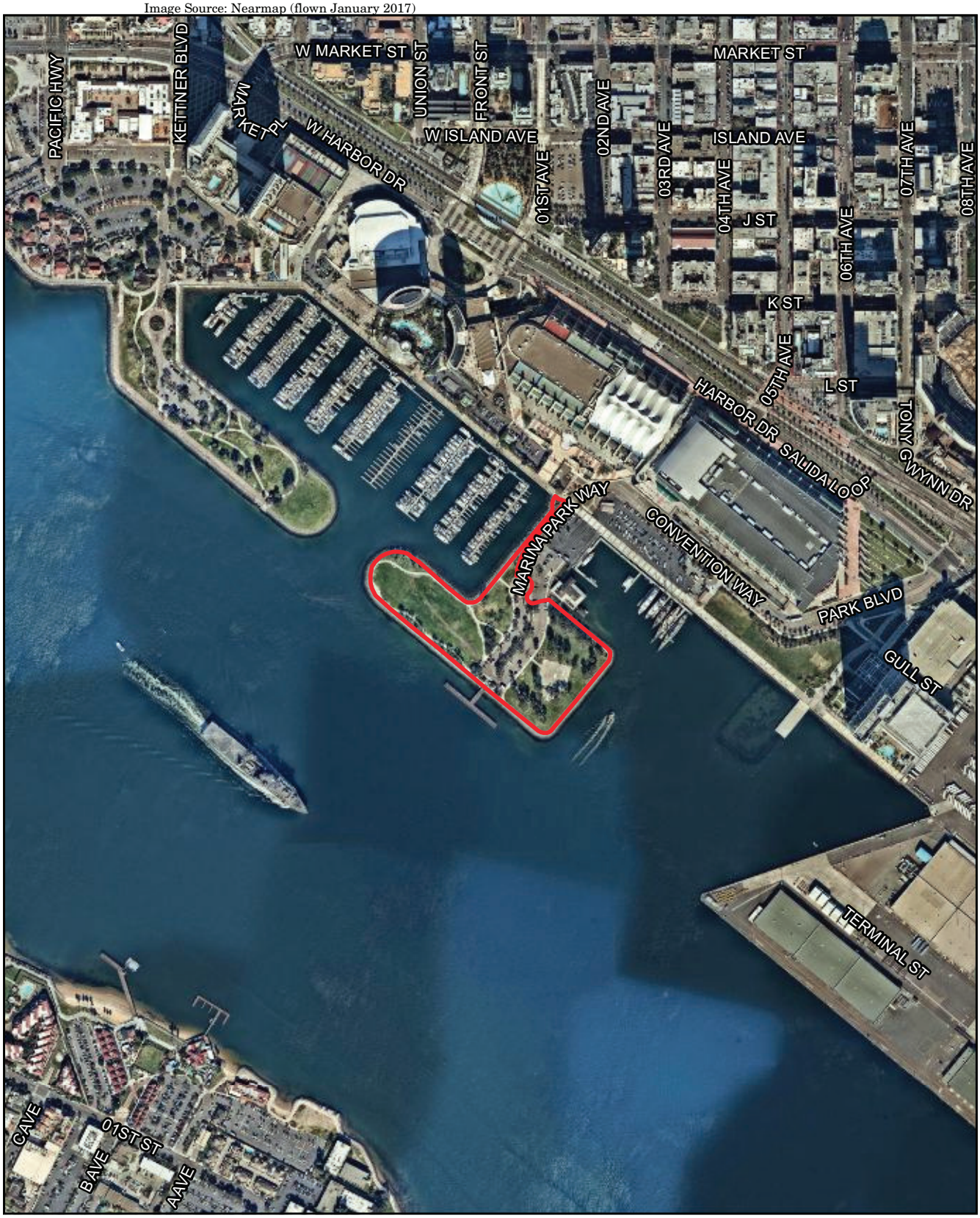
FIGURE 1

Regional Map

Image Source: Nearmap (flown January 2017)



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Project Location

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FIGURE 2

Project Vicinity Map

Map Source: Tucker Sadler

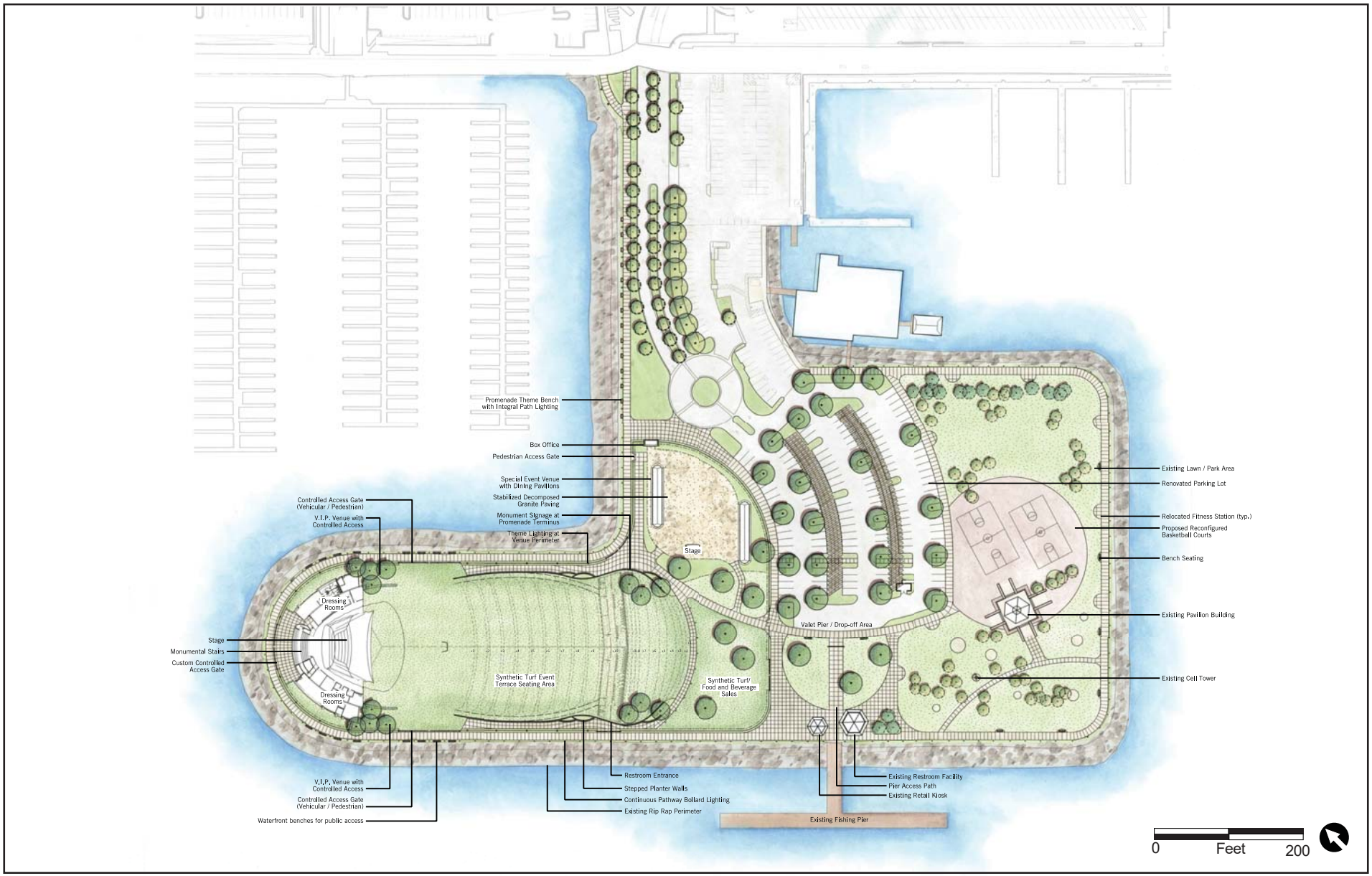

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FIGURE 3
Site Plan

Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level" which, while commonly confused, are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw}, is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an eardrum or microphone, the sound pressure level. Sound measurement instruments only measure sound pressure, and limits used in standards are generally sound pressure levels.

Noise is a loud or unpleasant sound that causes human disturbance. The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A). Human perception of noise has no simple correlation with acoustical energy. Changes in noise levels are generally perceived by the average human ear as follows: 3 dB(A) is barely perceptible, 5 dB(A) is readily perceptible, and 10 dB(A) is perceived as a doubling or halving of noise (California Department of Transportation [Caltrans] 2013).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

The L_{eq} is the equivalent steady-state noise level in a stated period of time that is calculated by averaging the acoustic energy over a time period; when no period is specified, a 1-hour period is assumed.

The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and a 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

1.3 Detrimental Effects of Noise Pollution

Noise pollution may have a detrimental effect on health and quality of life and may also result in health impacts. At extremely high noise levels, short-term detrimental health

effects may include pain and temporary or permanent hearing loss; however, in general short-term exposure to noise is not considered a health risk (U.S. EPA 1981). The U.S. Environmental Protection Agency (U.S. EPA) has identified a protective level for hearing of 75 dB over an 8 hour period (U.S. EPA 1981). Numerous studies have documented correlation between long-term exposure to excessive noise levels, hearing impairment, and stress-induced health effects such as hypertension and other cardiovascular disorders (U.S. EPA 1981). Effects on quality of life include sleep disturbance, impairment of classroom learning, speech interference, task interference, and general annoyance.

Sleep interference includes effects such as difficulty falling asleep, awakening, arousal, and sub-awakening. Noise levels of 40 to 50 dB(A) may interfere with sleep for some individuals (U.S. EPA 1981) and noise levels above 70 dB(A) will most likely result in waking. Sub-awakening effects occur when acoustic stimuli cause individuals to transition to more shallow stages of sleep and may occur at lesser noise levels (U.S. EPA 1981). The threshold for sleep disturbance is 45 dB(A).

Sentence intelligibility refers the ability of a person to understand sentences. Normal conversation with 95 percent sentence intelligibility is possible at 2 meters where ambient noise levels are 60 dB(A). If ambient noise levels increase, individuals must reduce the communication distance or raise voices to maintain sentence intelligibility of 95 percent. Raised voices are generally 6 dB louder than normal conversation; thus, raised conversation with 95 percent sentence intelligibility is possible at 2 meters where ambient noise levels are 60 dB(A). Noise levels not exceeding 55 dB will permit normal conversation at approximately 3 meters (U.S. EPA 1974). Speech interference is generally more objectionable in indoor environments.

Task interference varies with the type of task. Tasks that involve concentration, learning, or analytic processes are most sensitive. Indoor noise levels not exceeding 45 dB are identified as adequate to facilitate thought and communication (U.S. EPA 1974).

Annoyance is a description of human response rather than the cause. Contributors to annoyance may include speech interference, sleep interference, task interference, etc. As it is subjective and unquantifiable, annoyance is not a legal impact. There is no generally accepted noise level below which human annoyance does not occur.

As discussed in the U.S. EPA's Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with and Adequate Margin of Safety, evaluation of detrimental effects of noise pollution must recognize the setting of noise exposure (U.S. EPA 1974). The noise exposure setting of may be characterized as:

> Places where people are exposed to environmental noise for extended periods of time, such as dwellings;
>
> Places where people spend are exposed to environmental noise for extended periods of time that are usually less than twenty-four hours, such as school classrooms or occupational settings; or
>
> Noise exposure of an individual irrespective of area of condition.

Most noise environments are characterized by repetitive behavior from day to day, with some variation imposed by differences between weekday and weekend activity. The natural choice of duration for assessing detrimental effects of chronic noise exposure in residential areas is the 24-hour day (U.S. EPA 1974). Exposure at other areas where people spend extended periods of time such as classrooms or occupational settings are related to the typical 8-hour workday.

Adequate protection of the public against involuntary exposure to environmental noise requires special consideration of physical setting and the communication needs associated with each (U.S. EPA 1974). It is important to note the distinction between voluntary and involuntary exposures. The U.S. EPA defines non-voluntary noise exposure as "exposure of an individual to sound which the individual cannot avoid or the sound serves no useful purpose (e.g., the exposure to traffic noise or exposure to noise from a lawn mower)" (U.S. EPA 1974).

For recreational areas noise exposure is voluntary. Exposures to high levels of environmental noise are often produced or sought by the individual (EPA 1974). For example, voluntary exposures to loud music are common. Since noise levels in recreational areas are usually voluntary, there is seldom interference with the desired activity. Additionally, where environmental noise levels are consistent with community expectations, noise levels are less likely to result in interference. Consequently, the detrimental effects of noise pollution with regard to annoyance (i.e., quality of life) must be applied only to involuntary exposure (U.S. EPA 1974).

1.4 Degradation of the Ambient Community Noise Environment

In addition to the laws and regulations, another consideration in defining impact criteria is based on the degradation of the existing ambient noise environment. In community noise assessments, it is generally not significant if no noise-sensitive sites are located within the project vicinity or if permanent increases in community noise levels associated with implementation of the project would not exceed 3 dB at noise-sensitive locations in the project vicinity. A limitation in using a single value to evaluate an impact related to a noise level increase would be the failure to account for the preexisting ambient noise environment to which a person has become accustomed. Studies assessing the percentage of people highly annoyed by changes in ambient noise levels indicate that when ambient noise levels are low, a greater change is needed to cause a response (U.S. EPA 1974). As ambient noise levels increase, a lesser change in noise levels is required to elicit significant annoyance. Based on published guidance from the U.S. EPA, Federal Interagency Committee on Noise, Caltrans, and The Governor's Office of Planning and Research, a readily noticeable change in the existing noise environment may be considered a significant impact and a doubling of sound energy at an existing noisy location maybe considered a significant impact. A readily perceivable change is considered to be a change of 5 dB(A), and a doubling, or halving, of sound energy is equivalent to a 3 dB(A) change. A documented noisy site is assumed to be a location that currently exceeds a community's noise and land use compatibility standards.

Thus for this analysis, a substantial permanent increase in the ambient noise levels is defined as a 5 dB(A) increase, or greater, over existing noise levels when existing and future noise levels are equal to, or below, the local jurisdiction's noise and land use compatibility standard, or a 3 dB(A) increase when existing or future noise levels equal or exceed the jurisdiction's compatibility standards. As permanent noise level increases of less than 3 dB(A) would not exceed either threshold, consistency with the local jurisdiction's noise and land use compatibility standards is assessed where noise level increases exceed 3 dB(A).

2.0 Existing Conditions

Existing noise levels in the vicinity of the project site were measured on September 16, 2016, using several Larson-Davis LxT SoundTrack and SoundExpert sound level meters. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds
Height of Instrument:	5 feet above ground level

The sound level meters were calibrated before and after measurements. Six measurements were made in the vicinity of the project site, as described below. These ambient noise measurements were made on a night when no event was occurring but during typical event hours (between 7:00 p.m. and 10:00 p.m.). The locations of the measurements are shown on Figure 4, and the noise measurement data are contained in Attachment 1. Noise measurement locations were selected based on input from the community and in consultation with District staff and include both noise-sensitive land uses and outdoor use areas.

Measurement 1 was located in the City of Coronado at the grass area immediately southeast of the Coronado Ferry Landing, approximately 2,250 feet south from the project site. The main source of noise at this location was pedestrians conversing as they walked along the nearby walkways. Other sources of noise included the ferry horn and distant airplanes from Naval Air Station North Island (NASNI) and San Diego International Airport (SDIA). Vehicle traffic contributed minimally to the overall noise environment. The average measured noise level during Measurement 1 was 59.1 dB(A) L_{eq}. Hourly average noise levels at this location ranged from 58.7 to 59.4 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 49.9 dB(A) L_{eq}.

Measurement 2 was also located in the City of Coronado at the northeastern fence of the Coronado Point Condominium Complex, approximately 2,400 feet south from the project site. The main source of noise at this location was pedestrians conversing as they walked along the nearby walkways. Other sources of noise included the ferry horn and distant airplanes from NASNI and SDIA. Vehicle traffic contributed minimally to the overall noise environment. The average measured noise level during Measurement 2 was 60.3 dB(A) L_{eq}.

Image Source: Nearmap (flown January 2017)

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Project Location

Noise Measurement Location

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FIGURE 4

Noise Measurement Locations

Hourly average noise levels at this location ranged from 55.7 to 64.2 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 45.9 dB(A) L_{eq}.

Measurement 3 was located in the City of San Diego, within Ruocco Park, approximately 2,850 feet northwest from the project site. The main source of noise at this location was equipment associated with nearby buildings such as Chesapeake Fish Company. Noise from pedestrians conversing as they walked along nearby walkways and vehicle traffic on North Harbor Drive also contributed to the noise environment. The average measured noise level during Measurement 3 was 55.4 dB(A) L_{eq}. Hourly average noise levels at this location ranged from 54.4 to 56.1 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 49.2 dB(A) L_{eq}.

Measurement 4 was located in the City of San Diego, at the rear of the Marriott Marquis along the marina, approximately 1,200 feet north from the project site. The main source of noise at this location was mechanical equipment such as cooling towers associated with adjacent hotels. Other sources of noise included pedestrians conversing as they walked along the nearby walkways (i.e., "Marina Walk") and music from Sally's Fish House & Bar. Vehicle traffic contributed minimally to the overall noise environment. The average measured noise level during Measurement 4 was 56.4 dB(A) L_{eq}. Hourly average noise levels at this location ranged from 53.8 to 58.0 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 50.5 dB(A) L_{eq}.

Measurement 5 was located in the City of San Diego, northwest of the Hilton San Diego Bayfront hotel, approximately 2,050 feet east from the project site. The main source of noise at this location was pedestrians conversing as they walked along the nearby walkways. Other sources of noise included the music from Hilton San Diego Bayfront restaurants. Vehicle traffic contributed minimally to the overall noise environment. The average measured noise level during Measurement 5 was 51.9 dB(A) L_{eq}. Hourly average noise levels at this location ranged from 49.8 to 53.6 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 45.1 dB(A) L_{eq}.

Measurement 6 was located in the City of San Diego, south of the New Children's Museum, across West Island Avenue and approximately 2,000 feet north from the project site. The main source of noise at this location was vehicle traffic on nearby roadways and trolley passes. Other sources of noise included pedestrians conversing as they walked along the nearby walkways and passing skateboarders. The average measured noise level during Measurement 6 was 60.4 dB(A) L_{eq}. Hourly average noise levels at this location ranged from 54.9 to 63.7 dB(A) L_{eq}. In the absence of notable noise sources in the vicinity of the meter, minimum noise levels were as low as 47.3 dB(A) L_{eq}.

The Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Final Environmental Impact Report analysis included long-term ambient noise measurements at EMPS (District 2016). These long-term ambient noise measurements were conducted between April 6 and April 7, 2015. The long-term measurements location is also shown on Figure 4. The measured CNEL at EMPS was 61.1 dB(A). Measured daytime and evening noise levels (7:00 a.m. to 10:00 p.m.)_ranged from 53.0 to 61.4 dB(A) L_{eq}. The

loudest hourly noise level was recorded between 6:00 p.m. and 7:00 p.m. Measured nighttime noise levels (10:00 p.m. to 7:00 a.m.)_ranged from 52.2 to 56.6 dB(A) L_{eq}.

The San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events Project Environmental Impact Report analysis included long-term ambient noise measurements at locations including Shelter Island, B Street Pier, Coronado Municipal Golf Course, along 31st Street in National City, Chula Vista Wildlife Reserve, and at a lifeguard tower at Imperial Beach (District 2017). These long-term ambient noise measurements were conducted between August 3 and 6, 2016. Excluding a 20-minute portion of the measurements that overlapped with the Fireworks Display, the noise level at the B Street Pier was 62.6 CNEL and the noise level measured at the Coronado Municipal Golf Course was 65.6 CNEL. Hourly noise levels at the B Street Pier ranged from 55.8 to 65.8 dB(A) L_{eq} during daytime hours, from 55.2 to 64.5 dB(A) L_{eq} during evening hours, and from 41.4 to 59.2 dB(A) L_{eq} during nighttime hours. Hourly noise levels at the Coronado Municipal Golf Course ranged from 49.2 to 75.4 dB(A) L_{eq} during daytime hours, from 49.9 to 70.1 dB(A) L_{eq} during evening hours, and from 41.3 to 59.5 dB(A) L_{eq} during nighttime hours. Average daytime and evening noise levels varied less than a decibel at both locations. The noise San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events Project Environmental Impact Report measurement data are contained in Attachment 2.

No ambient noise level measurements were taken at Embarcadero Marina Park North (EMPN). The acoustic environment at EMPN is similar to the acoustic environment at EMPS. Thus, ambient noise levels at EMPN would be expected to be similar to ambient noise levels at EMPS.

3.0 Applicable Standards

The District does not have a noise ordinance and does not maintain significance criteria for noise impacts. The San Diego Unified Port District Act Section 60 states:

> In the absence of the adoption of any police, fire and sanitary regulations by the district, the police, fire and sanitary regulations of any municipal corporation whose boundaries are adjacent to or contiguous to the territorial limits of the district shall be applicable.

Adjacent or contiguous municipalities proximate to the project site include the City of San Diego and the City of Coronado. Within District jurisdiction, nuisance noise is prohibited at the District's discretion. Standards established in the City of San Diego Noise Abatement and Control Ordinance and the City of San Diego General Plan are applicable at land uses within the City of San Diego. Standards established in the City of Coronado's Noise Ordinance are applicable at land uses within the City of Coronado. These standards are summarized below.

3.1 City of San Diego Noise Abatement and Control Ordinance

3.1.1 Construction Noise Level Limits

Section 59.5.0404 of the City of San Diego (City) Noise Abatement and Control Ordinance states that:

> A. It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. . .
>
> B. . . .it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

The project construction would be restricted to between the hours of 7:00 a.m. and 7:00 p.m. and construction noise levels may not exceed 75 dB(A) 12-hour equivalent noise level ($L_{eq[12h]}$) as assessed at or beyond the property line of a property zoned residential.

3.1.2 Operational Noise Level Limits

Stationary noise sources are also regulated by the City's Noise Abatement and Control Ordinance. Section 59.5.0401 of the City's Noise Abatement and Control Ordinance states that:

> A. It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit.
>
> B. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts…

The applicable noise limits are summarized in Table 1.

Table 1 Stationary Source Noise Level Limits		
Land Use	Time of Day	Sound Level (dB[A] L_{eq})
Single-family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-family Residential (up to a maximum density of 1 unit/2,000 square feet)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All Other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	Anytime	75
dB(A) L_{eq} = one-hour equivalent A-weighted decibels		

The project site is part of the District's Planning District 3 – Centre City Embarcadero. The Precise Plan for Planning District 3 indicates that the project site is intended to support public recreation by providing park/plaza space. Noise level limits at the interface between the project and other parts of the Embarcadero Marina Park South are not restricted by the City of San Diego Noise Abatement and Control Ordinance.

The areas across Marina Park Way/Convention Way (Marriott Marquis and Hilton San Diego Bayfront) are intended to support commercial recreation. Therefore, the applicable noise level limits at the boundary of these properties are 65 dB(A) L_{eq} during daytime hours and 60 dB(A) L_{eq} during evening and nighttime hours.

3.2 City of San Diego General Plan

The City of San Diego's Noise Element of the General Plan specifies compatibility standards for different categories of land use. The land use and noise compatibility guidelines for noise are intended to be used for future development within San Diego to prevent future incompatibilities. The City's land use/noise compatibility guidelines are shown in Table 2.

Community parks are considered "compatible" with exterior noise levels up to 70 CNEL and "conditionally compatible" with exterior noise levels up to 75 CNEL. There is no interior noise level standard for such uses.

Table 2
City of San Diego – Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dB[A] CNEL) 60	65	70	75	
Parks and Recreational					
Parks, Active and Passive Recreation					
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities					
Agricultural					
Crop Raising & Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries & Greenhouses, Animal Raising, Maintain & Keeping; Commercial Stables					
Residential					
Single Dwelling Units; Mobile Homes		45			
Multiple Dwelling Units **For uses affected by aircraft noise, refer to Policies NE-D.2. & NE-D.3.*		45	45*		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities		45			
Other Educational Facilities including Vocational/Trade Schools and Colleges and Universities)		45	45		
Cemeteries					
Retail Sales					
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating & Drinking; Financial Institutions; Maintenance & Repair; Personal Services; Assembly & Entertainment (includes public and religious assembly); Radio & Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
Offices					
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50	
Vehicle and Vehicular Equipment Sales and Services Use					
Commercial or Personal Vehicle Repair & Maintenance; Commercial or Personal Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking					
Wholesale, Distribution, Storage Use Category					
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution					
Industrial					
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking & Transportation Terminals; Mining & Extractive Industries					
Research & Development				50	

	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level. Refer to Section I.
		Outdoor Uses	Activities associated with the land use may be carried out.
	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas. Refer to Section I.
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated to make the outdoor activities acceptable. Refer to Section I.
	Incompatible	Indoor Uses	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

SOURCE: City of San Diego 2015.
dB(A) = A-weighted decibels; CNEL = community noise equivalent level

3.3 City of Coronado Noise Abatement and Control Regulations

3.3.1 Construction Noise Level Limits

Sections 41.10.040 and 41.10.050 of the City of Coronado Noise Ordinance restricts noise from construction. These sections state that:

A. It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays to erect, construct, demolish, excavate, or alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. . .

B. . . .it shall be unlawful for any person, including the City of Coronado, to conduct any construction activity so as to cause, at or within the property lines of any property zoned residential, an average sound level greater than 75 decibels during a one-hour period any time between the hours of 7:00 a.m. to 7:00 p.m. unless a variance has been applied for and granted by the Noise Control Officer.

3.3.2 Operational Noise Level Limits

Section 41.10.010 of the City of Coronado Noise Ordinance restricts noise from stationary noise sources. These restrictions are shown in Table 3.

Table 3
Property Line Noise Limits

Land Use	Time of Day	Sound Level [dB(A) L_{eq}]
Residential: All R-1A; R-1B	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
All R-4; R-4; R-PCD; and R-5	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
Commercial (C); Commercial Recreation (C-R); Hotel/Motel (H-M); Civic Use (C-U); Open Space (OS); Parking Overlay (P-1)	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	50
dB(A) L_{eq} = one-hour equivalent A-weighted decibels		

3.4 City of Coronado General Plan

The City's Noise Element of the General Plan specifies compatibility standards for different categories of land use. The noise sensitivity guidelines are intended to be used for future development within Coronado to prevent future incompatibilities. The City's sensitivity guidelines indicate that noise levels up to 60 CNEL are clearly acceptable at parks and that noise levels up to 70 CNEL are normally acceptable. The City's noise sensitivity guidelines are shown in Table 4.

Table 4
City of Coronado – Noise Sensitivity Land Use Guidelines

Land Use	Exterior Noise Exposure [dB(A) CNEL]									
	45		55		65		75		85	95
Mobile Homes										
Single Family, Townhouses, Apartments										
High Rise Residence										
Hotels, Motels										
Schools, Churches, Libraries										
Auditoriums, Concert Halls										
Parks, Playgrounds										
Golf Courses, Riding Stables										
Offices										
Commercial-Retail, Movie Theaters, Restaurants										
Commercial-Wholesale, Some Retail, Manufacturing										
Livestock Farming										
Other Farming										

Clearly Acceptable | Normally Acceptable | Normally Unacceptable | Clearly Unacceptable

SOURCE: City of Coronado General Plan Noise Element 1999.
dB(A) = A-weighted decibels; CNEL = community noise equivalent level

4.0 Analysis Methodology

Noise is a sound that is loud, unpleasant, or that causes disturbance. Noise at excessive levels can affect the environment and quality of life through sleep or learning disturbance, subjective nuisance, or hearing loss. Specific land uses that the District considers noise-sensitive receptors include residences, hotels, schools, libraries, hospitals, and outdoor recreation areas such as parks. Based on their transient residential nature, hotels are only considered to be noise-sensitive receptors at night. Noise-sensitive receptors proximate to the project site include the Embarcadero Marina Park North (EMPN), Marriott Marquis, and the Hilton San Diego Bayfront. Additionally, the Fifth Avenue Landing Project proposes a hotel proximate to the project site. If approved, the Fifth Avenue Landing Project would be anticipated to be completed and occupied subsequent to project construction.

4.1 Construction Noise Analysis

Project construction noise would be generated by diesel engine-driven construction equipment used for site preparation and grading; removal of existing structures and pavement; and loading, unloading, and placing materials and paving. Diesel engine-driven trucks also would bring materials to the site and remove the soils from excavation.

Construction equipment with a diesel engine typically generates maximum noise levels from 80 to 90 dB(A) L_{eq} at a distance of 50 feet (Federal Transit Authority [FTA] 2006a). During excavation, grading, and paving operations, equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators and for non-equipment tasks, such as measurement. Although maximum noise levels may be 85 to 90 dB(A) at a distance of 50 feet during most construction activities, hourly average noise levels would be lower when taking into account the equipment usage factors. Table 5 summarizes typical construction equipment noise levels.

Noise generated by project construction was modeled using SoundPLAN. The SoundPLAN program (Navcon Engineering 2015) uses noise propagation following the International Organization for Standardization method ISO 9613-2 – Acoustics, Attenuation of Sound during Propagation Outdoors. The model calculates noise levels at selected receiver locations using input parameter estimates such as total noise generated by each noise source; distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures. Topography and receivers were input into the model using three-dimensional coordinates.

Table 5 Typical Construction Equipment Noise Levels		
	Noise Level at 50 Feet (dB[A])	
Equipment Category	Maximum Noise Level (L_{max})	Average Noise Level (L_{eq})
Air Compressor	80	76
Auger Drill Rig	85	78
Backhoe	80	76
Compactor	80	73
Concrete Mixer	85	81
Concrete Pump Truck	82	75
Crane	85	77
Dozer	85	81
Dump Truck	84	80
Excavator	85	81
Flatbed Truck	84	80
Front End Loader	80	76
Grader	85	81
Jack Hammer	85	78
Paver	85	82
Pickup Truck	55	51
Pump	77	74
Roller	85	78
Scraper	85	81
SOURCE: FTA 2006a.		

4.2 Operational Noise Analysis

When no events or rehearsals are occurring, noise sources associated with the site would include landscaping, pedestrians traversing the project site walkways, and activities associated with site features such as the basketball courts. During events and rehearsals, noise sources would include vehicles arriving at or leaving from the project parking lot and amplified sound such as announcements and music associated with the event.

4.2.1 Parking Lot Activity

Parking lot activities that generate noise include vehicles traveling to and from parking spaces, and brief noise instances associated with parking such as opening and closing car doors, engines starting, and car alarms. Noise from parking lot activities was assessed based on a screening procedure from the FTA guidance manual (FTA 2006b). Following the screening procedure, a parking facility warrants detailed analysis if it was sited within 125 feet of a noise-sensitive land use. This screening procedure is based on a theoretical 1,000-car parking lot and a 50 dB noise level threshold.

4.2.2 Amplified Sound

Sound levels throughout venue events would be inherently variable. Whereas the Tidelands Use and Occupancy Permit for the temporary concert venue limits noise levels that exceed

a 95 dB soundboard noise level limit, the real estate agreement for the proposed performance and event venue would establish a 99 dB soundboard noise level limit. A reduced soundboard noise level limit of 94 dB(A) would apply to all rehearsals on non-event days. The soundboard noise level limit would be measured at or beyond the front of stage for a 15-minute measure period. The soundboard limit would apply to all amplified sound equipment including use during Symphony performances, partnership performances, rental events, public events, and rehearsals. Public events would generally occur during daytime hours. Symphony performances, partnership performances, and rental events would generally occur during evening hours, however would possibly last until 11:00 p.m. As events would be subject to more stringent evening and nighttime noise level limits, the primary focus of this analysis is amplified sound during events. This analysis is based on the 99 dB soundboard noise level limit.

The performance stage shell would be a steel-framed structure with an opaque plastic material, either polyvinyl chloride or polytetrafluoroethylene, exterior. The performance shell would be a horn shaped structure that would cause the sound to be directed towards the audience. The back of the performance stage shell would be constructed using a transparent plastic material, ethylene tetrafluoroethylene, which would allow views of the waterfront and EMPN from the audience seating area. During events and rehearsals, amplified sound generated on the stage would reflect off the performance stage shell and transparent back and be directed toward the audience.

Additionally, the project would include seven “satellite” speakers along the audience periphery of the event seating area. Satellite speakers would be Meyer Sound Leopard Compact Linear Array Loudspeakers. Three satellite speakers would be located along the sides of the audience and one satellite speaker would be located at the rear of the audience. Each satellite speaker would be approximately 2 feet wide and would be mounted to a frame at heights of approximately 24 feet above grade. The satellite speakers would be independently oriented toward the audience.

The project acoustic design firm, Soundforms PLC, modeled sound propagation across the project site assuming a steady-state soundboard noise level of 99 dB. Noise impacts to adjacent land uses was assessed based on this sound propagation map (sound isopleths). As the soundboard noise-level limit is an instantaneous maximum noise level limit, assessment based on these contours is a conservative worst-case scenario. Average hourly sound levels during events and rehearsals would not necessarily approach the soundboard noise level limit. The average equivalent hourly noise level limit would be lesser due to event breaks, lulls between songs, and the inherent variation of volume throughout individual event songs.

4.3 Traffic Noise Increase

The project would not be adjacent to any freeways, arterials, or other major roadways and thus would not be exposed to excessive noise levels.

Project-generated traffic would result in an increase in volumes on local roadways and would thereby increase traffic noise levels. As identified in the project Traffic Impact Analysis, roadways utilized by a substantial portion of project-generated traffic would include Harbor Drive and Pacific Highway (Chen Ryan 2017). The project would not substantially alter the vehicle classifications mix on local or regional roadways nor would it alter the speed on an existing roadway or create a new roadway. Thus, the primary factor affecting off-site noise levels would be increased traffic volumes. Algorithms and reference levels established in the Federal Highway Administration's (FHWA's) Traffic Noise Model were used to calculate noise levels along these roadways with and without project-generated traffic.

Noise level contours were calculated using the FHWA's Traffic Noise Prediction Model based on the average daily traffic (ADT) volumes and speed limits. Typically, the predicted CNEL and the calculated maximum daytime hourly L_{eq} are equal. A typical vehicle classification mix of 96 percent passenger vehicles, 3 percent medium trucks, and 1 percent heavy trucks was assumed. Future traffic volumes with and without project events are summarized in Table 6. Traffic volumes shown in Table 6 reflect trip generation that would occur on the day of an event with maximum attendance, 10,000 attendees. Lesser traffic volume increases would occur on the day of event or rehearsal with fewer than 10,000 attendees.

Table 6
Future Traffic Volumes

Roadway	Speed Limit (mph)[1]	Future Traffic Volume (ADT)[2]	
		Long Term (2035) No Event	Long Term (2035) Plus Event
Harbor Drive			
West G Street to Pacific Highway	25	14,400	14,604
Pacific Highway to Kettner Blvd.	40	18,500	18,840
Market Street to Front Street	35	29,200	29,540
First Ave. to Convention Center Ct.	35	22,300	23,652
Fifth Ave. to Park Blvd.	40	24,100	26,534
South of Park Blvd.	40	20,200	20,336
Pacific Highway			
West G Street to Harbor Drive	35	9,700	9,836

ADT = average daily traffic; mph = miles per hour

[1]Source: San Diego Association of Governments (SANDAG) 2016
[2]Source: Chen Ryan 2017

5.0 Future Acoustical Environment and Impacts

5.1 Construction Noise

Construction noise is considered a point source and would attenuate at approximately 6 dB(A) for every doubling of distance. Table 7 summarizes construction equipment anticipated to be required at any time throughout the project.

Noise associated with the demolition, grading, building, and paving for the project would potentially result in short-term impacts to surrounding properties. If all project construction equipment were operated simultaneously, average hourly noise levels would reach up to 91 dB(A) L_{eq} at 50 feet. However, due to the limited size of the project site it is anticipated that up to three pieces of equipment would be in simultaneous use. Assuming that the three loudest pieces of construction equipment (the dozer, grader, and scrapers) were operated simultaneously, average hourly noise levels would reach up to 86 dB(A) L_{eq} at 50 feet.

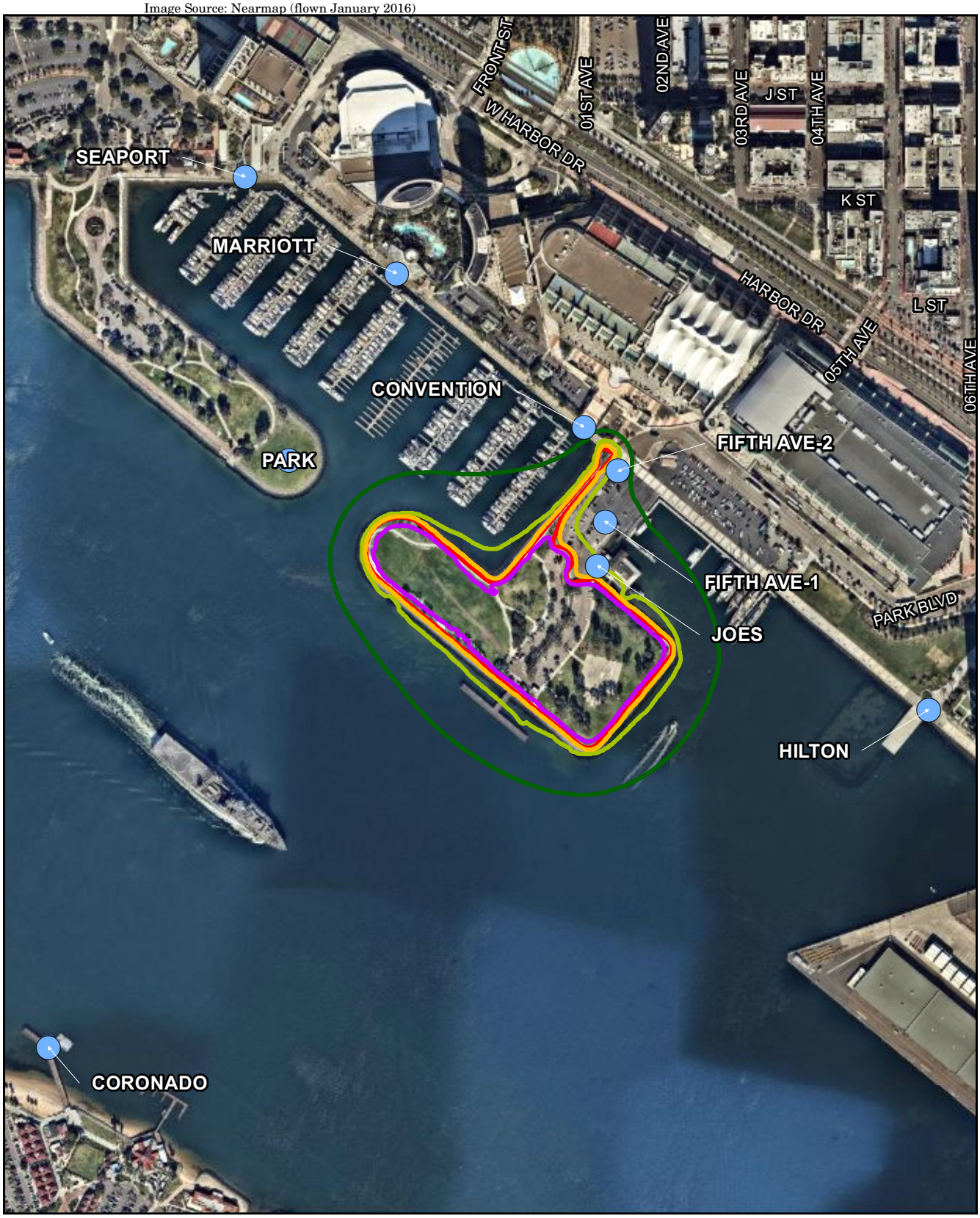
Table 7
Project Construction Equipment List

Equipment	Noise Level at 50 Feet (dB[A] L_{eq})	Number Required
Bulldozer CAT D9	81	1
Push Pull Scraper 627 CAT	81	4
Blade 14G CAT	81	1
4,000 Gallon Water Truck	81	2
Water Stand	--	1
Skid Steer (Bobcat)	76	2
Skip Loader	76	2
10-wheeler Dump Truck	80	1
Drill Rig	78	1
45-ton Crane	77	1
Concrete Pump	75	2

Following the methodology discussed in Section 4.1, Construction Noise Analysis, future ground-floor contours during simultaneous use of the three loudest pieces of equipment were calculated in the vicinity of the project site. Construction noise contours are shown on Figure 5. Full modeling output data are contained in Attachment 3.

As discussed in Sections 3.1 and 3.3, the City of San Diego Noise Abatement and Control Ordinance and the City of Coronado Noise Abatement and Control Regulations both establish a construction noise level limit of 75 dB(A) L_{eq} at or beyond the property lines of any property zoned residential. The nearest residential land uses are multi-family residential uses located north of Harbor Drive, approximately 1,700 feet north of the proposed performance and event venue. Conservatively assuming no shielding is provided by intervening terrain, barriers, and structures, noise levels at the nearest residential land use would reach up to approximately 55 dB(A) L_{eq}. As construction noise levels would not exceed the 75 dB(A) L_{eq} limit established in both the City of San Diego Noise Abatement and Control Ordinance or the City of Coronado Noise Abatement and Control Regulations, noise impacts associated with construction activities would be less than significant.

Image Source: Nearmap (flown January 2016)



Project Location

Noise Receiver

Noise Contours

60 dB(A) L_{eq}

65 dB(A) L_{eq}

70 dB(A) L_{eq}

75 dB(A) L_{eq}

0 Feet 500

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FIGURE 5

Construction Noise Contours

5.2 Operational Noise

When no events or rehearsals are occurring, noise sources associated with the site would include landscaping, pedestrians traversing the project site walkways, and activities associated with site features such as the basketball courts. The project would not substantially increase noise associated with these existing park activities. None of these noise sources are anticipated to violate the noise level limits of the City of San Diego's Noise Abatement and Control Ordinance or the City of Coronado Noise Abatement and Control Regulations or result in a substantial permanent increase in existing noise levels.

During rehearsals and events, noise sources would include vehicles arriving at or leaving from the project parking lot and amplified sound such as announcements and music associated with the rehearsal or event.

5.2.1 Parking Lot Activity

Following the screening procedures from the FTA guidance manual, parking facilities that are not sited within 125 feet of a noise-sensitive land use are not likely to result in noise levels in excess of 50 dB (FTA 2006b). Noise-sensitive land uses such as the EMPN, Marriott Marquis, Hilton San Diego Bayfront, and the proposed Fifth Avenue Landing Project are not within 125 feet of the project parking lot.

The FTA assessment is based on a theoretical 1,000-car parking lot and a 50 dB threshold. The project proposes a 132-space parking lot. Because the proposed parking lot would be smaller than the 1,000-space parking lot, noise generated by the proposed parking lot would be less. Additionally, the FTA's 50 dB threshold is more stringent than the applicable daytime and nighttime noise level limits from the City of San Diego Noise Abatement and Control Ordinance (65 and 60 dB[A] L_{eq}). Therefore, FTA guidance is conservative, and parking lot activity associated with the project is not anticipated to result in noise levels that exceed applicable noise level limits from the City of San Diego Noise Abatement and Control Ordinance. Additionally, the project would increase the parking lot size from 128 to 132 spaces. This increase would result in noise level increases of less than one decibel. As discussed in Section 1.2, Fundamentals of Noise, a change of 3 dB(A) is barely perceptible to the human ear. Thus, project parking lot enhancements would not result in a significant increase in noise levels.

5.2.2 Amplified Sound

Amplified sound equipment would be used during events as well as rehearsals. Amplified noise would reach the same levels during events and rehearsals. As discussed in Section 4.2.2, noise bleed through to adjacent land uses was assessed based on sound modeling developed by the project acoustic design firm, Soundforms PLC. The sound propagation map is shown in Figure 6. Figures 7 and 8 provide map inserts that focus on noise contours in San Diego and Coronado, respectively. Land uses associated with noise-sensitive receptors are identified on Figures 7 and 8.

Image Source: Nearmap (flown January 2017)

Maximum Noise Contours

Project Location

40 dB
45 dB
50 dB
55 dB
60 dB
65 dB
70 dB
75 dB
80 dB
85 dB

0 Feet 750

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FIGURE 6

Maximum Event Noise Contours

Image source: Nearmap (flown January 2017)

Project Location

District Lands

Land Use

- Recreation Areas
- Guest Lodging
- Multi-Family Residential
- School, Church, or Library
- Single Family Residential

Maximum Noise Contours

- 45 dB
- 50 dB
- 55 dB
- 60 dB
- 65 dB
- 70 dB
- 75 dB
- 80 dB
- 85 dB

0 Feet 450

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FIGURE 7

Maximum Event Noise Contours - San Diego

Image source: Nearmap (flown January 2017)

District Lands

Land Use

- Recreation Areas
- Guest Lodging
- Multi-Family Residential
- School, Church, or Library
- Health Care Facilities
- Single Family Residential

Maximum Noise Contours

- 40 dB
- 45 dB
- 50 dB
- 55 dB
- 60 dB
- 65 dB
- 70 dB
- 75 dB
- 80 dB
- 85 dB

0 Feet 450

FIGURE 8

Maximum Event Noise Propagation Map – Coronado

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Sound propagation shown in Figures 6, 7, and 8 is a conservative worst-case scenario with noise levels at the limit of 99 dB at the front of the stage. Average hourly sound levels during all events including Symphony performances, partnership performances, rental events, public events, and rehearsals would not necessarily approach the soundboard noise level limit. The average equivalent hourly noise level limit would be lesser due to event breaks, the fade between songs, and the inherent variation of sound power (volume) throughout individual event songs.

The project would include seven speaker towers along the audience periphery and independently oriented toward the audience. The purpose of a "satellite" speaker system is to allow the speakers to be placed in close proximity of the receivers thus require lesser individual volumes to reach all members of the audience. Each speaker tower would be independently oriented toward the audience. Speaker towers would supplement sound levels generated at performance stage to provide for more even noise levels throughout the front and rear of the audience seating area and minimize noise spillover. Due to speaker tower directionality and as the speaker towers are anticipated to generate lesser noise levels than speakers at the performance stage, speaker towers would not be a dominant noise source beyond the Bayside Performance Park. Noise level contours shown in Figures 6, 7, and 8, were modeled assuming noise originating from the performance stage is dominant.

5.2.2.1 Maximum Event Noise Levels

This analysis assesses compliance with each noise level limit from the City of San Diego Noise Abatement and Control Ordinance and the City of Coronado Noise Abatement and Control Regulations at noise-sensitive receptors. Each noise level limit is discussed individually. Although repetitious, this approach is intended to provide clarity and equivalent focus on noise level limits for each land use type.

a. Unmitigated Maximum Noise Levels

Noise Levels in San Diego

As shown in Figure 7, the nearest residential land uses in San Diego are multi-family residential uses located north of Harbor Drive, approximately 1,500 feet north of the Bayside Performance Park (1,700 feet north of the performance stage). Applicable noise level limits at the property line of the multi-family residential land uses are 55 dB(A) L_{eq} during daytime hours, 50 dB(A) L_{eq} during evening hours, and 45 dB(A) L_{eq} during nighttime hours. Land uses within the 45 dB(A) L_{eq} noise contour noise contour include Petco Park, overflow parking associated with Petco Park and the San Diego Trolley, and hotels such as the Omni Hotel and the Hilton San Diego Gaslamp Quarter. Multi-family residential uses would not be exposed to noise levels in excess of 45 dB(A) L_{eq}. Thus, the project would not result in noise levels that exceed City of San Diego Noise Abatement and Control Ordinance noise level limits at multi-family residential uses.

The Bayside Performance Park is in close proximity to noise-sensitive commercial establishments, including the proposed Fifth Avenue Landing Project located 300 feet north of the Bayside Performance Park (670 feet from the performance stage), the Marriott Marquis located 875 feet north of the Bayside Performance Park (950 feet from the performance stage), and the Hilton San Diego Bayfront located 1,750 feet west of the Bayside Performance Park (2,250 feet from the performance stage). The City of San Diego Noise Abatement and Control Ordinance prohibits noise levels that exceed 65 dB(A) L_{eq} during daytime hours and 60 dB(A) L_{eq} during evening and nighttime hours at the property line of commercial land uses. The 60 dB(A) L_{eq} noise contour would not extend north of Harbor Drive, and thus would be entirely within the District lands. Commercial land uses within the 60 dB(A) L_{eq} noise contour are shown in Figure 7. The project would result in maximum noise levels between 55 and 60 dB(A) L_{eq} at the nearest façades of the Marriott Marquis. Thus, the project would not result in noise levels that exceed City of San Diego Noise Abatement and Control Ordinance noise level limits at the Marriott Marquis. The project would result in maximum noise levels that exceed nighttime noise level limits from the City of San Diego Noise Abatement and Control Ordinance (60 dB[A] L_{eq}) at the project site of the proposed Fifth Avenue Landing Project (noise levels at property line exceed 70 dB(A) L_{eq}) and the Hilton San Diego Bayfront hotel (noise levels at building façade exceed 60 dB(A) L_{eq}).

The Bayside Performance Park is within EMPS and is approximately 330 feet southeast of EMPN. Additionally, Fifth Avenue Landing Park is located approximately 850 feet east of the Bayside Performance Park and San Diego Bayfront Park is located approximately 1,000 feet east of the Bayside Performance Park. The City of San Diego Noise Abatement and Control Ordinance does not establish noise level limits for parks. However, the City of Coronado Noise Abatement and Control Regulations regulates noise levels at properties zoned for open space, which will be applied to the park uses adjacent to the project site. In the absence of an established City of San Diego noise level limit for parks, this analysis considers applicable noise level limits that parallel City of Coronado noise level limits for open space land uses to be applicable to parks in San Diego. The City of Coronado Noise Abatement and Control Regulations prohibits noise levels that exceed 60 dB(A) L_{eq} during daytime and evening hours and 50 dB(A) L_{eq} at nighttime hours at the property line of open space land uses. As shown in Figure 7, during events, the project would expose EMPN to noise levels in excess of 55 dB(A) L_{eq}. Thus, the project would result in maximum noise levels exceeding 50 dB(A) L_{eq} at EMPN during the nighttime. As shown in Figure 7, during events, the project would expose Fifth Avenue Landing Park and San Diego Bayfront Park to noise levels in excess of 60 dB(A) L_{eq}. Thus, the project would result in maximum noise levels exceeding 60 dB(A) L_{eq} during the daytime and evening, and 50 dB(A) L_{eq} during the nighttime. Noise levels in EMPS would range from approximately 65 to 75 dB(A) L_{eq}. Based on the noise levels shown in Figure 7, the project would result in maximum noise levels exceeding 60 dB(A) L_{eq} at EMPS during the daytime and evening, and 50 dB(A) L_{eq} during the nighttime; therefore impacts to EMPS and surrounding parks would be significant.

Noise Levels in Coronado

Residential uses in Coronado (see Figure 8) include both single- and multi-family residential uses. Pursuant to the City of Coronado Noise Abatement and Control Regulations, applicable noise level limits at the property line of the single-family residential uses (R-1A and R-1B) are 50 dB(A) L_{eq} during daytime hours, 45 dB(A) L_{eq} during evening hours, and 40 dB(A) L_{eq} during nighttime hours. As shown in Figure 8, the 40 dB(A) L_{eq} noise contour encompasses a large portion of Coronado, including numerous single-family residential uses. Additionally, the 45 dB(A) L_{eq} noise contour would also encompass several single-family residential uses. The project would result in maximum noise levels that exceed evening and nighttime limits from the City of Coronado Noise Abatement and Control Regulations (45 dB[A] L_{eq} and 40 dB[A] L_{eq}) at a single-family residential uses in Coronado.

The Coronado Noise Abatement and Control Regulations prohibit noise levels that exceed 55 dB(A) L_{eq} during daytime hours, 50 dB(A) L_{eq} during evening hours, and 45 dB(A) L_{eq} during nighttime hours at multi-family residential uses (R-4; R-4; R-PCD; and R-5). As shown in Figure 8, the 45 dB(A) L_{eq} noise contour is generally contained to the portion of Coronado that is east of Orange Avenue and north of 4th Street. Multi-family residential uses within the 45 dB(A) L_{eq} noise contour include the Coronado Point Condominium Complex (northern and western façades), the Village in Coronado (northern and western façades, the building is mixed-use with apartments and retail shops), Broadstone Coronado on the Bay Apartments, Coronado Retirement Village, and townhomes at 1433 First Street. Additionally, the 50 dB(A) L_{eq} noise contour encompasses portions of the Broadstone Coronado on the Bay Apartments and townhomes at 1433 First Street. The project would result in maximum noise levels that exceed limits from the City of Coronado Noise Abatement and Control Regulations (45 dB[A] L_{eq}) at a multi-family residential uses in Coronado.

The Coronado Noise Abatement and Control Regulations prohibits noise levels that exceed 60 dB(A) L_{eq} during daytime and evening hours, 50 dB(A) L_{eq} during nighttime hours at other non-residential uses such as commercial, hotels, civic uses, and open space. As shown in Figure 8, non-residential uses within the 50 dB(A) L_{eq} noise contour include portions of the Coronado Island Marriott Resort & Spa. The project would result in maximum noise levels that exceed limits from the City of Coronado Noise Abatement and Control Regulations (50 dB[A] L_{eq}) at the Coronado Island Marriott Resort & Spa.

Significance before Mitigation

The project would be consistent with City of San Diego General Plan Land Use Compatibility policies. Impacts related to the City of San Diego General Plan Land Use Compatibility policies would be less than significant.

As stated previously, noise contours shown in Figures 6, 7, and 8 represent a conservative worst-case scenario. Average sound levels during events and rehearsals would not necessarily approach the soundboard noise level limit. The average equivalent hourly noise level limit would be lesser due to event breaks, lulls between songs, and the inherent

variation of volume throughout individual event songs. Due to the number of variables of predicting the difference between maximum noise levels and the average hourly noise levels that would occur during events is not feasible without some degree of speculation on the relation between maximum and average noise levels. This analysis assesses equates maximum and hourly average noise levels. This highly conservative method is the only concrete method to identify all potential impacts. Actual hourly average noise levels would be less than those identified.

Without mitigation the project would result in maximum noise levels that exceed the nighttime noise level limits at several sensitive receptor locations including EMPS, EMPN, Fifth Avenue Landing Park, San Diego Bayfront Park, the Hilton San Diego Bayfront (which is noise sensitive at night) and the Coronado Island Marriott Resort & Spa (which is noise sensitive at night), and single- and multi-family residential uses in Coronado. In addition, the project would result in maximum noise levels that exceed evening noise levels limit at single-family residential uses in Coronado and the daytime/evening noise level limit at EMPS, Fifth Avenue Landing Park and San Diego Bayfront Park. These noise impacts would be considered potentially significant.

b. Mitigation Measures

The following mitigation measures are designed to reduce potentially significant impacts:

MM NOI-1: Active Noise Monitoring

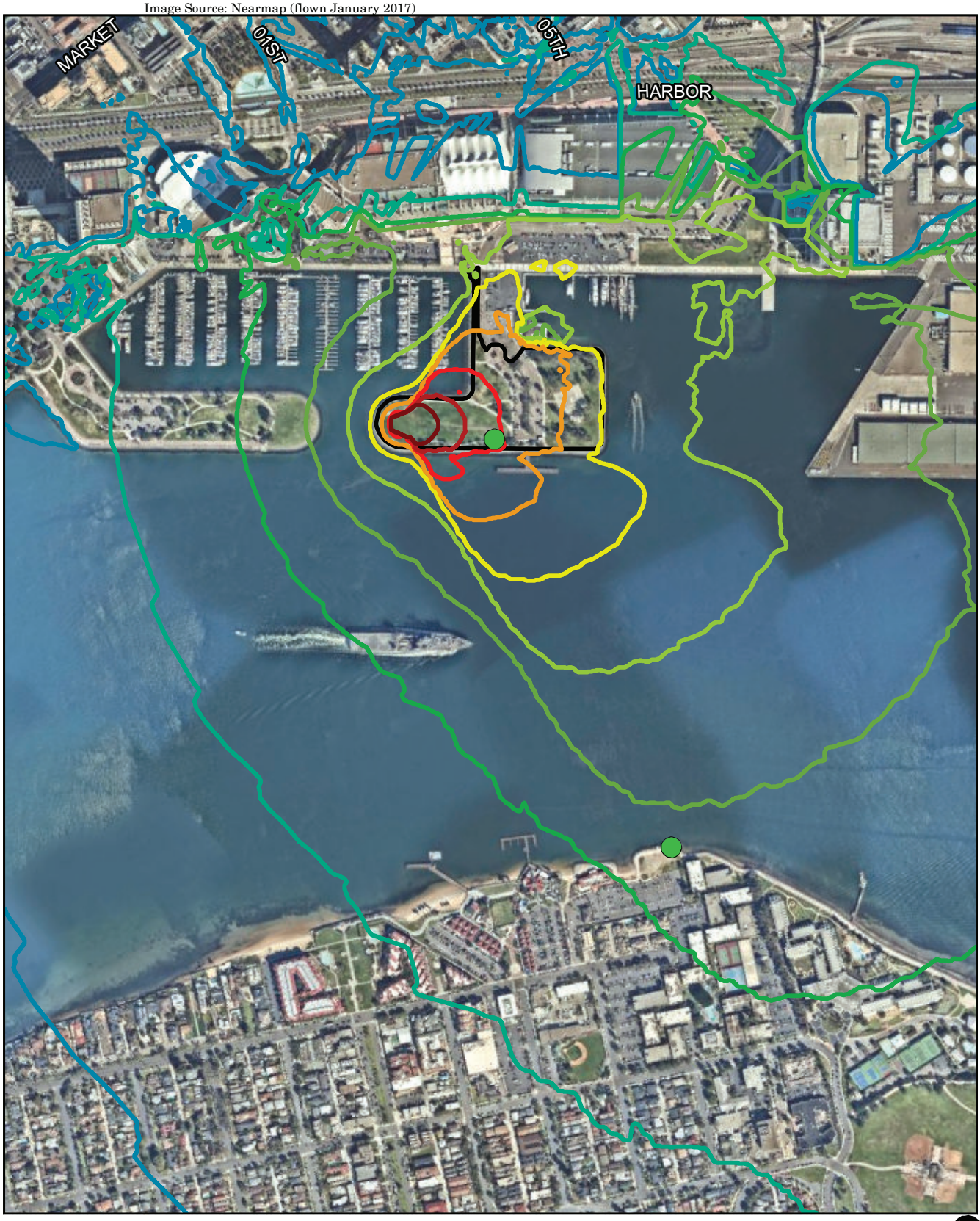
Requirements Prior to Project Occupancy

Prior to the use of amplified sound equipment, the Applicant shall construct and maintain permanent noise monitoring stations at locations (1) in Embarcadero Marina Park South and (2) along the Coronado Bayshore Bikeway as shown in Figure 9. Maintenance of noise monitoring shall include annual calibration of noise meters. Noise monitoring devices shall be oriented toward the proposed venue and have a clear line of sight to the proposed venue. Prior to the first use of amplified sound equipment, the Applicant shall demonstrate to the satisfaction of the District that noise monitoring stations have been constructed and are functional.

Requirements During Events

Noise monitoring devices shall be active during all events that include use of amplified sound equipment including, but not limited to, Symphony performances, partnership performances, rental events, public events, and rehearsals. During rental events the Applicant may designate a staff member to perform noise monitoring or may require through contract stipulations that the rental party satisfy noise monitoring requirements. Noise monitoring devices and associated software shall be capable of data logging and continuous noise level averaging over various time periods. The

Image Source: Nearmap (flown January 2017)



Maximum Noise Contours

Project Location

Monitoring Locations

40 dB
45 dB
50 dB
55 dB
60 dB
65 dB
70 dB
75 dB
80 dB
85 dB

0 Feet 750

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FIGURE 9

Noise Monitoring Locations

Applicant shall designate staff member(s) to monitor noise monitoring devices during all events.

The designated staff member shall possess at least a year of verifiable experience related to noise monitoring and shall be knowledgeable in the fundamentals of noise propagation and operation of noise monitoring equipment. The designated staff member(s) shall observe current noise measurement data from both monitoring stations to identify potential violations.

If measured noise levels approach levels that indicate a potential violation of the Coronado Noise Abatement and Control Regulations, the Applicant shall take immediate action to reduce amplified noise levels. Immediate actions include, but are not limited to, reduced sound amplification, temporary suspension of sound amplification, transitioning to quieter portions of the performance (e.g., acoustic performance), and early termination of events where other actions fail to control noise levels. Measured noise levels at the Coronado monitoring station that would indicate a potential violation of Coronado Noise Abatement and Control Regulations are defined as 50 dB(A) L_{eq} between 7:00 a.m. and 7:00 p.m.; 45 dB(A) L_{eq} between 7:00 p.m. and 10:00 p.m.; and 40 dB(A) L_{eq} between 10:00 p.m. and 7:00 a.m.

Other noise sources in Coronado and on the San Diego Bay may contribute to measured noise levels at the Coronado monitoring station. Notwithstanding measured noise levels at the Coronado monitoring station, based on noise contours shown in Figure 9, if noise levels at the EMPS monitoring station are below 75 dB(A) L_{eq} between 7:00 a.m. and 7:00 p.m., 70 dB(A) L_{eq} between 7:00 p.m. and 10:00 p.m., and 65 dB(A) L_{eq} between 10:00 p.m. and 7:00 a.m., they do not indicate a violation of Coronado Noise Abatement and Control Regulations attributable to the proposed venue.

The Coronado Noise Abatement and Control Regulations establish an hourly average noise level limit. Regardless, a potential violation may be identified before an hour has elapsed. Temporary noise levels that indicate a potential violation of the Coronado Noise Abatement and Control Regulations shall include noise levels that are:

3 dB(A) above the noise level limit for a period of 30 minutes; or
6 dB(A) above the noise level limit for a period of 15 minutes; or
10 dB(A) above the noise level limit for a period of 5 minutes; or
15 dB(A) above the noise level limit for a period of 2 minutes.

Requirements Following Events

The Applicant shall maintain an active log of noise levels throughout all events that include amplified sound, and the log shall be furnished to the District on an annual basis.

The Applicant shall notify the District within 24 hours of any complaint or if noise levels indicate a potential violation of applicable noise level limits. If data from the noise monitoring stations indicate that the source of noise was not the Bayside Performance Park, the Applicant shall submit evidence to the District in writing within 7 days.

If recorded noise levels indicate a potential violation, or if noise levels indicate a potential violation of Coronado Noise Abatement and Control Regulations attributable to a source other than the proposed venue, the Applicant shall provide a follow-up detailed letter report assessing the recorded noise levels, actions taken to reduce amplified noise levels, and any other information pertinent to impacts and resolution within 30 days of the event. The letter report and follow-up detailed letter report shall be provided to District compliance monitoring staff for determining adequacy actions intended to reduce noise levels and whether additional corrective actions are necessary to prevent repeated violations.

MM NOI-2: Noise Compliant Hotline

Requirements

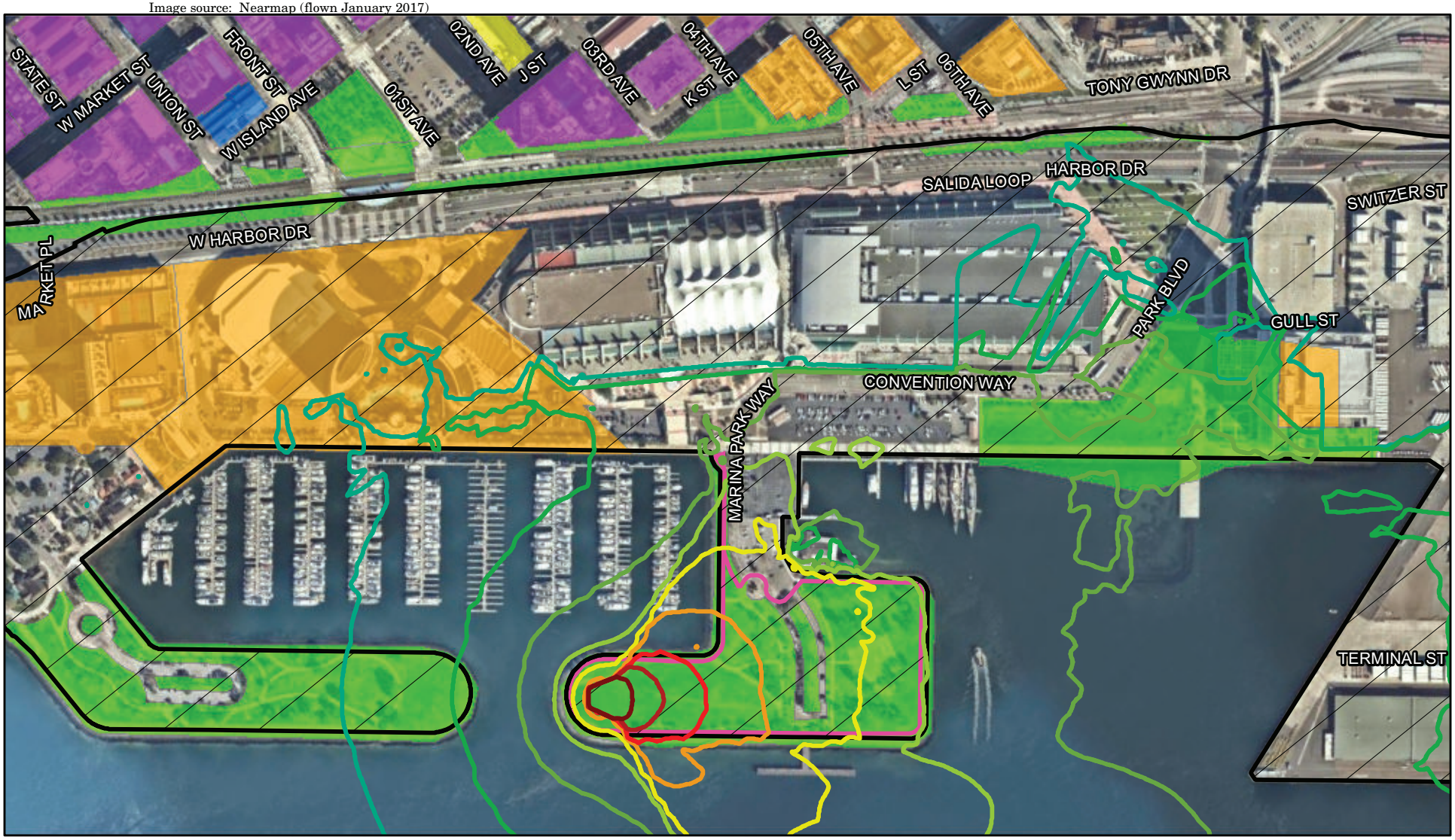
The District shall maintain a dedicated noise complaint hotline for the proposed venue. All noise complaints shall be documented. The Symphony shall be notified of all noise complaints and required to take corrective action if necessary prior to the following event.

c. Mitigated Maximum Noise Levels

As discussed previously, the average hourly sound levels during events are not readily relatable to maximum noise levels due to event breaks, lulls between songs, and the inherent variation of volume throughout individual event songs. Therefore, it is not feasible to demonstrate compliance with noise ordinances through a reduced soundboard noise level limit without some degree of speculation on the relation between peak and average noise levels.

This analysis does not attempt to predict the relation between maximum and hourly noise levels. MM NOI-1 requires that the Applicant operate continuous noise measurement throughout events that include amplified sound and immediately reduce amplified noise levels if measured noise levels exceed specific criteria. Criteria outline in MM NOI-1 would require a minimum 5 dB(A) reduction between maximum and hourly average noise levels during evening hours and a minimum 10 dB(A) reduction between maximum and hourly average noise levels during nighttime hours. Figures 10, 11, 12, and 13 show the noise levels that would result if enforcement of MM NOI-1 achieves the minimum reductions. These noise contours are conservative as a 5 dB(A) evening noise level reduction and a 10 dB(A) nighttime noise level reduction are the minimum reductions associated with enforcement of MM NOI-1.

Image source: Nearmap (flown January 2017)



Project Location
District Lands

Land Use

Recreation Areas
Guest Lodging
Multi-Family Residential
School, Church, or Library
Single Family Residential

Mitigated Evening Contours

45 dB
50 dB
55 dB
60 dB
65 dB
70 dB
75 dB
80 dB
85 dB

0 Feet 450

FIGURE 10

Mitigated Evening Event Noise Propagation Map – San Diego

RECON

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Image source: Nearmap (flown January 2017)

Project Location
Port Lands

Land Use

Recreation Areas
Guest Lodging
Multi-Family Residential
School, Church, or Library
Single Family Residential

Mitigated Nighttime Contours

45 dB
50 dB
55 dB
60 dB
65 dB
70 dB
75 dB
80 dB
85 dB

0 Feet 450

FIGURE 11

Mitigated Nighttime Event Noise Propagation Map – San Diego

RECON

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Image source: Nearmap (flown January 2017)

District Lands

Land Use

Recreation Areas

Guest Lodging

Multi-Family Residential

School, Church, or Library

Health Care Facilities

Single Family Residential

Mitigated Evening Contours

40 dB, 45 dB, 50 dB, 55 dB, 60 dB, 65 dB, 70 dB, 75 dB, 80 dB, 85 dB

0 Feet 450

FIGURE 12

Mitigated Evening Event Noise Propagation Map – Coronado

RECON

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Image source: Nearmap (flown January 2017)

District Lands

Land Use

- Recreation Areas
- Guest Lodging
- Multi-Family Residential
- School, Church, or Library
- Health Care Facilities
- Single Family Residential

Mitigated Nighttime Contours

- 40 dB
- 45 dB
- 50 dB
- 55 dB
- 60 dB
- 65 dB
- 70 dB
- 75 dB
- 80 dB
- 85 dB

0 Feet 450

FIGURE 13

Mitigated Nighttime Event Noise Propagation Map – Coronado

RECON

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Noise Levels in San Diego

Without mitigation, the Hilton San Diego Bayfront hotel would be within the 60 dB(A) L_{eq} noise contour and thus would be exposed to noise levels that exceed nighttime limits from the City of San Diego Noise Abatement and Control Ordinance (60 dB[A] L_{eq}).

With incorporation of MM NOI-1, the Hilton San Diego Bayfront hotel would be within the 50 dB(A) L_{eq} nighttime noise contour and outside the 55 dB(A) L_{eq} nighttime noise contour. Thus, the Hilton San Diego Bayfront hotel would not be exposed to noise levels that exceed limits from the City of San Diego Noise Abatement and Control Ordinance. Impacts to the Hilton San Diego Bayfront hotel would be mitigated to a level that is less than significant.

Without mitigation, noise levels in EMPN would exceed 50 dB(A) L_{eq} and thus would be exposed to noise levels that exceed applicable nighttime limits (50 dB[A] L_{eq}). With incorporation of MM NOI-1, EMPN would be outside the 50 dB(A) L_{eq} noise contour. Thus, EMPN would not be exposed to noise levels that exceed applicable nighttime limits. Impacts to EMPN would be mitigated to a level that is less than significant.

Without mitigation, noise levels in Fifth Avenue Landing Park and San Diego Bayfront Park would exceed 60 dB(A) L_{eq} and thus be exposed to noise levels that exceed applicable daytime, evening, and nighttime limits (60, 60, and 50 dB[A] L_{eq}). With incorporation of MM NOI-1, noise levels in Fifth Avenue Landing Park and San Diego Bayfront Park would range from 55 to 60 dB(A) L_{eq} during evening hours and would range from 50 to 55 dB(A) L_{eq} during nighttime hours. MM NOI-1 would not reduce daytime noise levels. Therefore, noise levels in Fifth Avenue Landing Park and San Diego Bayfront Park would exceed the daytime and nighttime noise level limits. Impacts to Fifth Avenue Landing Park and San Diego Bayfront Park would remain significant after mitigation.

Without mitigation, noise levels in EMPS would range from approximately 65 to 75 dB(A) L_{eq} and thus be exposed to noise levels that exceed applicable daytime, evening, and nighttime limits (60, 60, and 50 dB[A] L_{eq}). With incorporation of MM NOI-1, noise levels in EMPS would range from 60 to 70 dB(A) L_{eq} during evening hours and would range from 55 to 65 dB(A) L_{eq} during nighttime hours. MM NOI-1 would not reduce daytime noise levels. Therefore, noise levels in EMPS would exceed the daytime, evening, and nighttime noise level limits. Impacts to EMPS would remain significant after mitigation.

Noise Levels in Coronado

Without mitigation, single-family residential uses in Coronado would be within the 45 dB(A) L_{eq} noise contour and thus would be exposed to noise levels that exceed evening and nighttime limits from the Coronado Noise Abatement and Control Regulations (45 dB[A] L_{eq} and 40 dB[A] L_{eq}). With incorporation of MM NOI-1, all single-family residential uses in Coronado would be outside the 45 dB(A) L_{eq} evening noise contour and outside the 40 dB(A) L_{eq} nighttime noise contour. Thus, single-family residential uses in Coronado would not be exposed to noise levels that exceed limits from the City of Coronado Noise Abatement and Control Regulations. Impacts to single-family residential uses in Coronado would be mitigated to a level that is less than significant.

Without mitigation, multi-family residential uses in Coronado would be within the 50 dB(A) L_{eq} noise contour and thus would be exposed to noise levels that exceed evening and nighttime limits from the Coronado Noise Abatement and Control Regulations (50 dB[A] L_{eq} and 45 dB[A] L_{eq}). With incorporation of MM NOI-1, all multi-family residential uses in Coronado would be outside the 50 dB(A) L_{eq} evening noise contour and outside the 45 dB(A) L_{eq} nighttime noise contour. Thus, multi-family residential uses in Coronado would not be exposed to noise levels that exceed limits from the City of Coronado Noise Abatement and Control Regulations. Impacts to multi-family residential uses in Coronado would be mitigated to a level that is less than significant.

Without mitigation, the Coronado Island Marriott Resort & Spa would be within the 50 dB(A) L_{eq} and thus would be exposed to noise levels that exceed nighttime limits from the Coronado Noise Abatement and Control Regulations (50 dB[A] L_{eq}). With incorporation of MM NOI-1, the 45 dB(A) L_{eq} noise contour would not extend to Coronado. Thus, the Coronado Island Marriott Resort & Spa would not be exposed to noise levels that exceed limits from the City of Coronado Noise Abatement and Control Regulations. Impacts to non-residential uses in Coronado would be mitigated to a level that is less than significant.

Significance After Mitigation

The Bayside Performance Park would be located within EMPS. The District considers active recreation areas such as EMPS to be noise-sensitive receptors. Mitigated noise levels at EMPS would exceed the daytime, evening, and nighttime noise limits of 60, 60, and 50 dB(A) L_{eq}.

Mitigation measures that were considered to reduce noise levels at the EMPS included a reduction of noise levels within Bayside Performance Park (i.e., a reduction in the volume of the amplified sound), construction of a noise barrier (wall or berm) between Bayside Performance Park and EMPS, or time of day restrictions on the use of amplified sound equipment, limitations on the duration of use of amplified sound equipment, or a combination thereof. The applicability of each mitigation measure is assessed in the following paragraphs.

As discussed previously, with incorporation of MM NOI-1 noise levels in EMPS would range from 65 to 75 dB(A) L_{eq} during the day, 60 to 70 dB(A) L_{eq} during evening hours, and 55 to 65 dB(A) L_{eq} during nighttime hours. The applicable noise level limits are 60 dB(A) L_{eq} during daytime and evening hours, and 50 dB(A) L_{eq} at nighttime hours at the property line of open space land uses. Thus, in addition to the noise level reductions achieved by MM NOI-1, a 15 dB(A) daytime noise level reduction, 10 dB(A) evening noise level reduction, and 15 dB(A) nighttime noise level reduction would be required to comply with noise level limits in EMPS. Acoustic noise levels (i.e., noise levels without any amplification) are shown on Figure 14. As shown, without any amplification instrument noise levels would exceed the evening and nighttime noise level limits throughout EMPS. Thus, no level of reduced amplification would reduce noise to lower than applicable noise level limits from the City of San Diego Noise Abatement and Control Ordinance.

Map Source: Tucker Sadler

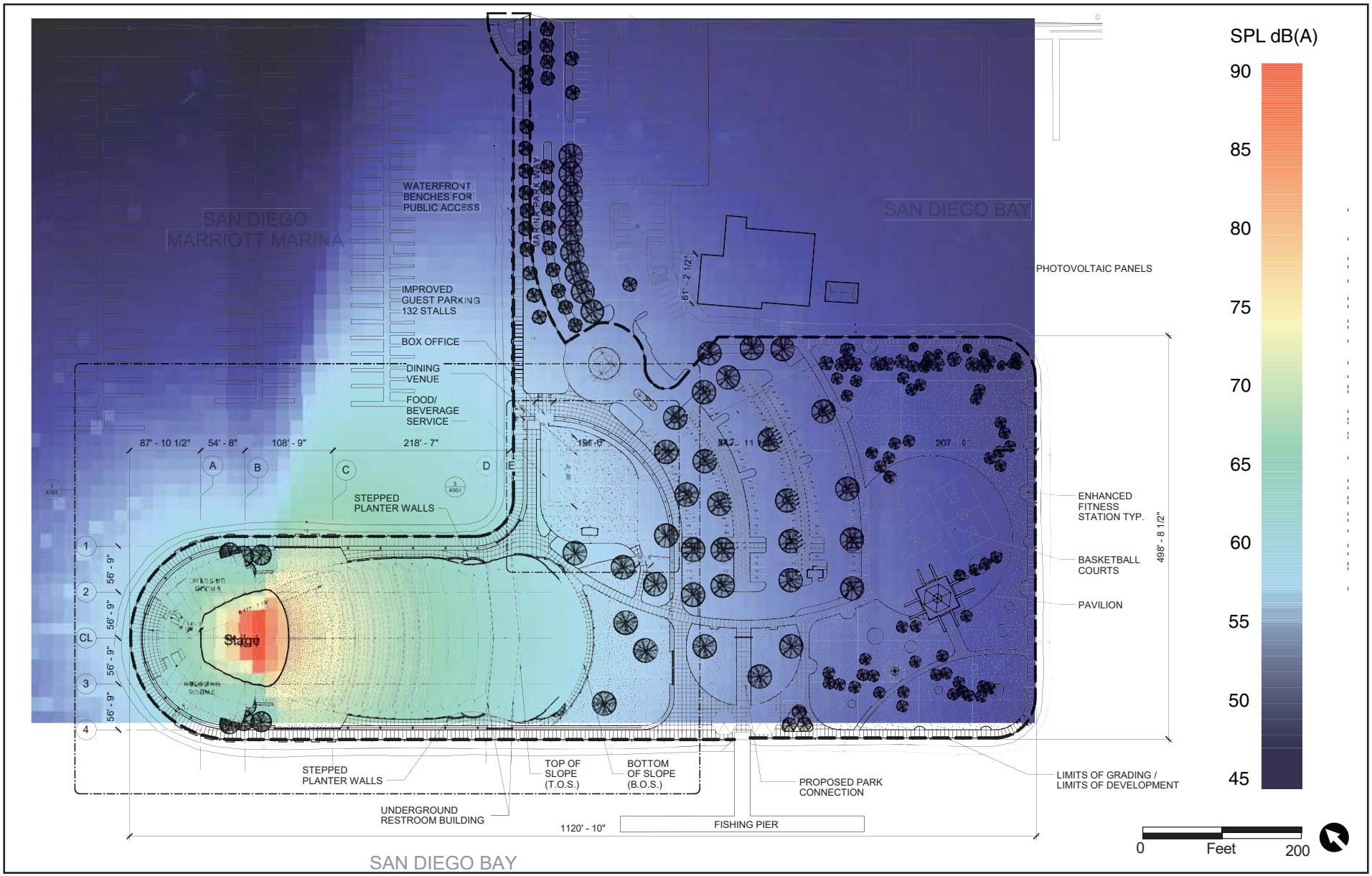

FIGURE 14

Non-Amplified Event Noise Propagation Map

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As discussed in Chapter 3 of the Draft Environmental Impact Report (EIR) for the project, project objective #2 would replace a temporary seasonal performance and event venue with an iconic and attractive, world-class and highly innovative permanent outdoor public venue that can facilitate enhanced public park uses and enrich visual and cultural resources in the area. The existing temporary venue accommodates events (i.e., Bayside Summer Nights performances) that include the use of amplified sound equipment and this use of amplified sound equipment already results in noise levels that exceed noise level limits throughout EMPS. Mitigation that would require elimination of use of amplified sound equipment would conflict with this objective because it would preclude replacement of the existing temporary venue with a permanent facility that can accommodate a similar use. Thus, elimination of all amplified sound equipment is not considered feasible.

The Bayside Performance Park is located on tidelands. Construction of a noise barrier would further restrict public access to the EMPS and would potentially restrict views of the San Diego Bay. This would be contrary to District and California Coastal Commission public access laws, regulations, and policies and therefore is not feasible for legal and policy reasons.

As discussed previously, the project site is entirely within the EMPS and thus, noise levels in EMPS would exceed the applicable daytime, evening, and nighttime limits. EMPS is open to the general public between 6:00 a.m. and 10:30 p.m. Use of EMPS occurs primarily during daytime and evening hours. As primary hours of active park use are during daytime and evening hours, time of day restrictions that prohibit use of amplified sound equipment during nighttime hours would not substantially reduce impacts. A time of day restriction that prohibits use of amplified sound equipment to after 10:30 p.m. and before 6:00 a.m. would mitigate impacts to EMPS; however, this mitigation is not considered feasible due to other noise considerations such as permanent increases in ambient noise levels. Thus, a time of day restriction measure would not reduce the impact and is not considered feasible mitigation.

Noise level limits from the City of San Diego Noise Abatement and Control Ordinance and the City of Coronado Noise Abatement and Control Regulations apply over a 1-hour period. Mitigation that restricts the duration of use of amplified sound equipment would not reduce maximum hourly noise levels unless the specified duration was less than 1 hour. The existing temporary venue accommodates events (i.e., Bayside Summer Nights performances) that include the use of amplified sound equipment, and this use of amplified sound equipment already results in noise levels that exceed noise level limits throughout EMPS for durations that exceed 1 hour. Mitigation that would require restriction of use of amplified sound equipment to less than 1 hour would conflict with project objective #2, because it would preclude replacement of the existing temporary venue with a permanent facility that can accommodate a similar use. Thus, limitations on the duration of use of amplified sound equipment are not considered feasible.

As it is not feasible to reduce noise levels at EMPS less than the noise level limits of 60 dB(A) L_{eq} during daytime hours, 60 dB(A) L_{eq} during evening hours, and 60 dB(A) L_{eq} during nighttime hours, impacts would be significant and unavoidable.

5.2.2.2 Ambient Noise Level Increase

a. Unmitigated Ambient Noise Level Increase

The existing temporary venue accommodates up to 37 Bayside Summer Nights performances between June and September. The project would expand programming to include year-round events. As discussed in the Section 1.1, project programming for paid admission events would be limited to 110 half-day events and up to 1.5 non-event day rehearsals per event (i.e., 165 non-event day rehearsals) per the conditions of a District-issued Real Estate Agreement for the Bayside Performance Park. In addition to these 275 events, free public events and Education and Public Engagement Program events and associated rehearsals would be permitted (not subject to a specific limitation). Based on anticipated Bayside Performance Park programming, the project would increase the frequency of use of amplified sound equipment from approximately 37 days per year to potentially 290 days per year. These 290 days per year are anticipated to consist of 100 paid admission events (i.e., Symphony performances, partnership performances, and event rentals), 16 public events (i.e., Education and Public Engagement Program events), and 174 non-event day rehearsals.

Community noise exposures were calculated. Results are discussed below. Full calculation details are contained in Attachment 4.

Noise Level Increases in San Diego

Measured ambient noise levels within EMPS ranged from 53 to 61 dB(A) L_{eq} during daytime and evening hours and from 52 to 57 dB(A) L_{eq} during nighttime hours. The measured CNEL at EMPS was 61 dB(A). Under a reasonable worst-case scenario in which there would be a 3-hour rehearsal and an 8-hour event, ambient noise levels would increase from 61 to 76 CNEL. Under a reasonable worst-case non-event day scenario in which there would be a 3-hour daytime rehearsal between the hours of 9:00 a.m. and 4:00 p.m. and a 3-hour evening rehearsal between the hours of 7:00 p.m. and 10:00 p.m., ambient noise levels would increase from 61 to 68 CNEL. With a single 3-hour evening rehearsal between the hours of 7:00 p.m. and 10:00 p.m., ambient noise levels would increase from 61 to 67 CNEL. With a single 3-hour daytime rehearsal between the hours of 9:00 a.m. and 4:00 p.m., ambient noise levels would increase from 61 to 64 CNEL. As evening rehearsals would be limited to 30 rehearsals per year, this worst-case non-event day scenario may occur up to 30 days per year. Thus, the project would result in permanent noise level increases at EMPS that are greater than 5 CNEL on event days and on non-event days that include evening rehearsals.

Based on the similarity of the noise environment at EMPN to the noise environment at EMPS, ambient noise levels at EMPN are estimated to be similar to ambient noise levels at EMPS. Due to distance and orientation of the stage as well as shielding provided by the performance stage shell, use of amplified sound equipment is anticipated to generate noise levels below the existing ambient noise levels at EMPN. Thus, the project would result in permanent noise level increases at EMPN that are lower than 3 CNEL.

Measured ambient noise levels at the Hilton San Diego Bayfront and immediately southeast of the San Diego Bayfront Park ranged from 50 to 54 dB(A) L_{eq} during evening hours. Daytime and nighttime ambient noise levels at the Marriott Marquis would be expected to be similar to ambient noise levels at EMPS. Under a reasonable worst-case scenario in which there would be a 3-hour rehearsal and an 8-hour event, ambient noise levels would increase from 61 to 67 CNEL. Under a reasonable non-event day scenario in which there would be a 3-hour daytime rehearsal between the hours of 9:00 a.m. and 4:00 p.m. and a 3-hour evening rehearsal between the hours of 7:00 p.m. and 10:00 p.m., ambient noise levels would increase from 61 to 62 CNEL. Thus, the project would result in permanent noise level increases at Fifth Avenue Landing Park, San Diego Bayfront Park, or the Hilton San Diego Bayfront hotel that are greater than 5 CNEL on event days and the project would result in noise level increases at Fifth Avenue Landing Park, San Diego Bayfront Park, or the Hilton San Diego Bayfront hotel that are lower than 3 CNEL on non-event days.

Measured ambient noise levels at the Marina Walk between the Marriott Marquis and the Bayside Performance Park ranged from 54 to 58 dB(A) L_{eq}. Daytime and nighttime ambient noise levels at the Marriott Marquis would be expected to be similar to ambient noise levels at EMPS. Due to distance and orientation of the stage as well as shielding provided by the performance stage shell, use of amplified sound equipment is anticipated to generate noise levels that are lower than the existing ambient noise levels at the Marriott Marquis. Thus, the project would result in permanent noise level increases at the Marriott Marquis that are lower than 3 CNEL.

Noise Level Increases in Coronado

Measured ambient noise levels at the area immediately southeast of the Coronado Ferry Landing were approximately 59 dB(A) L_{eq} during evening hours, and measured ambient noise levels in front of the Coronado Point Condominium Complex ranged from 56 to 64 dB(A) L_{eq} during evening hours. Daytime and nighttime ambient noise levels in Coronado would be expected to be similar to ambient noise levels at the Coronado Municipal Golf Course. Measured ambient noise levels at the Coronado Municipal Golf Course were approximately 59 dB(A) L_{eq} during daytime hours and 47 dB(A) L_{eq} during nighttime hours. Use of amplified sound equipment is anticipated to generate noise levels that are lower than the existing ambient noise levels in Coronado. Thus, the project would result in permanent noise level increases in Coronado that are lower than 3 CNEL.

Significance before Mitigation

As discussed in Section 1.4, a substantial permanent increase in the ambient noise levels is defined as a 5 dB(A) increase, or greater, over existing noise levels when existing and future noise levels are equal to, or below, the local jurisdiction's noise and land use compatibility standard, or a 3 dB(A) increase when existing or future noise levels equal or exceed the jurisdiction's compatibility standards. As permanent noise level increases of less than 3 dB(A) would not exceed either threshold, consistency with the local jurisdiction's noise and land use compatibility standards is assessed where noise level increases exceed 3 dB(A).

The project would result in permanent noise level increases as a result of use of amplified sound equipment. Permanent noise level increases at EMPN, the Marriott Marquis, and in Coronado would be lower than 3 CNEL. Therefore, impacts from permanent noise level increases at these locations would be less than significant.

Under a reasonable non-event day scenario, ambient noise levels would increase from 61 to 62 CNEL at Fifth Avenue Landing Park, San Diego Bayfront Park, and the Hilton San Diego Bayfront. As the noise level increase on non-event days would be lower than 3 CNEL, impacts from permanent noise level increases at Fifth Avenue Landing Park, San Diego Bayfront Park, and the Hilton San Diego Bayfront on non-event days would be less than significant.

Under a reasonable worst-case event-day scenario ambient noise levels at Fifth Avenue Landing Park and San Diego Bayfront Park would increase from 61 to 67 CNEL on event days. Noise level increases would be perceived as a readily perceptible increase in the ambient noise levels. The City of San Diego's land use and noise compatibility guidelines indicate that parks are considered "compatible" with exterior noise levels up to 70 CNEL. Although noise levels would not exceed the applicable compatibility standard, permanent noise level increases at Fifth Avenue Landing Park and San Diego Bayfront Park would be greater than 5 CNEL. Therefore, impacts from permanent noise level increases at Fifth Avenue Landing Park and San Diego Bayfront Park on event days would be significant.

Under a reasonable worst-case event-day scenario ambient noise levels at the Hilton San Diego Bayfront would increase from 61 to 67 CNEL on event days. Ambient noise level increases would be readily perceptible. The City of San Diego's land use and noise compatibility guidelines indicate that visitor accommodations (i.e., hotels) are "compatible" with exterior noise levels up to 60 CNEL. Therefore, on event days the project would result in noise levels that exceed compatibility standards at the Hilton San Diego Bayfront and permanent noise level increases would be greater than 3 CNEL. Impacts from permanent noise level increases at the Hilton San Diego Bayfront on event days would also be significant.

Under a reasonable worst-case scenario, ambient noise levels within EMPS would increase from 61 to 76 CNEL. Under a reasonable non-event day scenario, ambient noise levels would increase from 61 to 68 CNEL. Ambient noise level increases would be perceived as a doubling of the noise levels. The City of San Diego's land use and noise compatibility guidelines indicate that parks are considered "compatible" with exterior noise levels up to 70 CNEL and "conditionally compatible" with exterior noise levels up to 75 CNEL if all feasible measures are included to reduce noise within the park. On event days the project would result in noise levels that exceed compatibility standards at EMPS, and permanent noise level increases at EMPS would be greater than 3 CNEL. On non-event days with evening rehearsals the project would result in noise levels that are consistent with compatibility standards at EMPS and permanent noise level increases at EMPS would be greater than 5 CNEL. On non-event days without evening rehearsals, the project would result in noise levels that are consistent with compatibility standards at EMPS, and permanent noise level increases at EMPS would be lower than 5 CNEL. Impacts from

permanent noise level increases at EMPS on event days would be significant. Impacts from permanent noise level increases at EMPS non-event days with evening rehearsals would also be significant. Impacts from permanent noise level increases at EMPS non-event days without evening rehearsals would less than significant.

b. Mitigation Measures

As discussed in Section 5.2.2.1, MM NOI-1 requires that the Applicant shall operate continuous noise measurement throughout events that include amplified sound and immediately reduce amplified noise levels if measured noise levels exceed specific criteria. Incorporation of MM NOI-1 would reduce noise level increases associated with the project.

The following additional mitigation measures are designed to reduce significant impacts:

MM NOI-3: Restrict Duration of Sound Amplification on Event Days

On the day of an event, the total use of amplified sound equipment for either ***events or rehearsals*** shall be limited to a cumulative total of 9 hours.

Requirements Following Events

The Applicant shall limit sound amplification on event days to a cumulative total of 9 hours or less. Sound amplification may occur over multiple distinct intervals, as long as the sum of distinct intervals is 9 hours or less. The Applicant shall maintain an active log of all events that include the use of amplified sound equipment, including a description of the interval during which amplified sound equipment was used, and the log shall be furnished to the District on an annual basis. The Applicant shall notify the District within 24 hours of any complaint.

MM NOI-4: Restrict Duration of Sound Amplification on Non-Event Days

On non-event days with evening rehearsals between the hours of 7:00 p.m. and 10:00 p.m., ***rehearsals*** shall be limited to 100 minutes or less.

Requirements Following Rehearsals

On non-event days with evening rehearsals between the hours of 7:00 p.m. and 10:00 p.m., the Applicant shall limit the total daily duration of use of amplified sound equipment to 100 minutes or less. The Applicant shall maintain an active log of all events that include the use of amplified sound equipment, including a description of the interval during which amplified sound equipment was used, and the log shall be furnished to the District on an annual basis. The Applicant shall notify the District within 24 hours of any complaint.

c. Mitigated Ambient Noise Level Increases

Criteria outlined in MM NOI-1 would require a minimum 5 dB(A) reduction between maximum and hourly average noise levels during evening hours and a minimum 10 dB(A)

reduction between maximum and hourly average noise levels during nighttime hours. In addition to noise level reductions required by MM NOI-1, criteria outlined in MM NOI-3 would require sound amplification to be limited to 9 hours or less on the day of an event.

With incorporation of MM NOI-1 and NOI-3, the project would result in noise levels at Fifth Avenue Landing Park, San Diego Bayfront Park, or the Hilton San Diego Bayfront hotel ranging up to 65 dB(A) L_{eq} during daytime hours, 60 dB(A) L_{eq} during evening hours, and 55 dB(A) L_{eq} during nighttime hours. Under a reasonable worst-case scenario in which there would be a 3-hour rehearsal and a 6-hour event, ambient noise levels would increase by approximately 2 CNEL. As mitigated ambient noise level increases would be lower than 3 CNEL, impacts from permanent noise level increases at Fifth Avenue Landing Park, San Diego Bayfront Park, or the Hilton San Diego Bayfront hotel on both event days and non-event days would be less than significant.

With incorporation of MM NOI-1 and NOI-3, the project would result in noise levels at EMPS ranging up to 75 dB(A) L_{eq} during daytime hours, 70 dB(A) L_{eq} during evening hours, and 65 dB(A) L_{eq} during nighttime hours. Under a reasonable worst-case scenario in which there would be a 3-hour rehearsal and a 6-hour event, ambient noise levels would increase from 61 to 71 CNEL. On non-event days with a 3-hour daytime rehearsal ambient noise levels would increase from 61 to 64 CNEL. On non-event days with 100-minute evening rehearsal, ambient noise levels would increase from 61 to 65 CNEL. With incorporation of MM NOI-3 and NOI-4, the project would result in noise levels that are consistent with compatibility standards at EMPS on both event days and non-event days. The project would continue to result in noise level increases that are greater than 5 CNEL on event days; however, the project would no longer result in noise level increases that are greater than 5 CNEL on non-event days with evening rehearsals. Thus, incorporation of MM NOI-4 would be anticipated to reduce the frequency that the project results in significant ambient noise level increases from 146 days per year (event days and non-event day evening rehearsals) to 116 days per year (event days only).

Incorporation of MM NOI-4 would reduce the number of occasions that the project would be anticipated to result in a substantial increase in noise levels; however, any single occurrence of a substantial noise level increase would be considered significant. Nonetheless, MM NOI-4 is recommended to reduce impacts from permanent ambient noise level increases. Impacts would remain significant.

Restriction of evening rehearsals to 100 minutes or less would preclude rehearsing for near to the full duration of a typical half-day event. Thus, there may be other performance-related or other considerations that would result from duration restrictions on evening rehearsals. MM NOI-4 is recommended, however, it may not be feasible.

As discussed in Section 5.2.2.1, mitigation measures were considered to reduce noise levels associated with the use of amplified sound equipment. Mitigation measures that were considered to reduce noise level increases include a reduction of noise levels within Bayside Performance Park (i.e., a reduction in the volume of the amplified sound), construction of a noise barrier (wall or berm) between Bayside Performance Park and EMPS, time of day

restrictions on use of amplified sound equipment, limitations on the duration of use of amplified sound equipment, or a combination thereof.

A reduction in noise levels within Bayside Park would be required through MM NOI-1, which would require the Applicant to operate continuous noise measurements throughout events that include amplified sound and immediately reduce amplified noise levels if measured noise levels exceed specific criteria.

Noise level increases could be further reduced by elimination of amplified sound equipment. As shown in Figure 14, acoustic performance (i.e., performances without any amplification) would result in noise levels of up to approximately 60 dB(A) L_{eq} within EMPS. Under a reasonable worst-case scenario with elimination of all use of amplified sound equipment and in which there would be a 3-hour rehearsal and a 6-hour event, ambient noise levels would increase from 61 to 63 CNEL. Thus, elimination of all use of amplified sound equipment would reduce noise level increases to lower than 5 CNEL. As discussed in Chapter 3 of the Draft EIR for the project, project objective #2 would replace a temporary seasonal performance and event venue with an iconic and attractive, world-class and highly innovative permanent outdoor public venue that can facilitate enhanced public park uses and enrich visual and cultural resources in the area. The existing temporary venue accommodates events (i.e., Bayside Summer Nights performances) that include the use of amplified sound equipment, and this use of amplified sound equipment already results in ambient noise level increases on the day of events. Mitigation that would require elimination of use of amplified sound equipment would conflict with this objective because it would preclude replacement of the existing temporary venue with a permanent facility that can accommodate a similar use. Thus, elimination of all amplified sound equipment is not considered feasible.

Construction of a noise barrier between the Bayside Performance Park and EMPS would not be feasible due to public access considerations.

The existing temporary venue accommodates performances during evening and nighttime hours. Thus, time of day restrictions on event days would conflict with project objective #2, because they would preclude replacement of the existing temporary venue with a permanent facility that can accommodate a similar use. For these reasons, additional time of day restrictions on the event days would not be feasible. With incorporation of identified mitigation, evening rehearsals on non-event days would result in less than significant impacts. Thus, additional time of day restrictions are not needed because the recommended mitigation measures will reduce impacts below significance on non-event days.

A limitation on the duration of use of amplified sound equipment would be required by MM NOI-3, which restricts use of amplified sound equipment on event days to 9 hours or less. The existing temporary venue accommodates full day events. Thus, further duration restrictions on event days would conflict with project objective #2 because it would preclude replacement of the existing temporary venue with a permanent facility that can accommodate a similar use. With incorporation of identified mitigation, rehearsals on non-event days would not result in significant impacts. Thus, duration restrictions would not reduce significant impacts.

For these reasons, it is not feasible to mitigate ambient noise level increases at EMPS to lower than 5 CNEL on event days. Incorporation of MM NOI-1 and MM NOI-3 would reduce, but not eliminate, permanent noise level increases on event days. Noise level increases on the event days would remain readily perceptible. Noise level increases would be perceived as degrading the ambient noise environment and may result in task interference, speech interference, or general annoyance. Impacts associated with permanent noise level increases at EMPS would remain significant and unavoidable.

5.3 Traffic Noise

Following the methodology discussed in Section 4.3, noise levels with and without event traffic were calculated along local roadways. Results are summarized in Table 8 and full output data are contained in Attachment 5.

Table 8
Future Off-site Traffic Noise Increases

Roadway	Speed Limit (mph)[1]	Traffic Volume (ADT)[2]		Noise Level (CNEL)		
		No Event	Plus Event	No Event	Plus Event	Net Increase
Harbor Drive						
West G Street to Pacific Highway	25	14,400	14,604	65	65	>0.1
Pacific Highway to Kettner Blvd.	40	18,500	18,840	70	70	0.1
Market Street to Front Street	35	29,200	29,540	71	71	>0.1
First Ave. to Convention Center Ct.	35	22,300	23,652	70	70	0.2
Fifth Ave. to Park Blvd.	40	24,100	26,534	71	72	0.4
South of Park Blvd.	40	20,200	20,336	70	70	>0.1
Pacific Highway						
West G Street to Harbor Drive	35	9,700	9,836	66	66	>0.1

ADT = average daily traffic; mph = miles per hour; CNEL = community noise equivalent level.
[1] Source: SANDAG 2016
[2] Source: Chen Ryan 2017

During events and rehearsals, the project would result in noise level increases of less than one decibel. As discussed in Section 1.2, Fundamentals of Noise, a change of 5 dB(A) is readily perceptible to the human ear. Project-generated traffic would result in a lower than 5 CNEL increase along local roadways. Thus, project traffic would not result in a significant increase in traffic noise levels along local roadways.

6.0 Conclusions and Noise Abatement Measures

6.1 Construction Noise

Construction activities would generally occur over a 12-hour period between 7:00 a.m. and 7:00 p.m. on weekdays. The loudest construction activities would be the earthworks (i.e., mass and fine grading). While construction may be heard over other noise sources in the area, the exposure would be temporary and would not exceed the applicable regulation of 75 dB(A) L_{eq}. Therefore, temporary increases in noise levels from construction activities would be less than significant.

6.2 Operational Noise

When no events or rehearsals are occurring, noise sources associated with the site would include landscaping, pedestrians traversing the project site walkways, and activities associated with site features such as the basketball courts. The project would not substantially increase noise associated with these activities. None of these noise sources are anticipated to violate the noise level limits of the City of San Diego's Noise Abatement and Control Ordinance or the City of Coronado's Noise Ordinance or result in a substantial permanent increase in existing noise levels.

During events and rehearsals, noise sources would include vehicles arriving at or leaving from the project parking lot and amplified sound such as announcements and music associated with the event. Parking lot activities that generate noise include vehicles traveling to and from parking spaces, and brief noise instances associated with parking such as opening and closing car doors, engines starting, and car alarms. The project parking lot would not exceed screening criteria from the FTA guidance manual. Therefore, the project parking lot does not warrant detailed analysis and is not anticipated to result in impacts.

The primary source of potential noise would be from amplified sound. Noise from amplified sound equipment was assessed based on sound propagation modeling performed by the project acoustic design firm, Soundforms PLC.

As shown in Figures 6, 7, and 8, without mitigation the project would result in noise levels that exceed limits from the City of San Diego Noise Abatement and Control Ordinance or the City of Coronado Noise Abatement and Control Regulations at several noise-sensitive receptors in both San Diego and Coronado. MM NOI-1 requires the Applicant to operate continuous noise measurement at locations shown in Figure 9 throughout events that include amplified sound and immediately reduce amplified noise levels if measured noise levels exceed specific criteria. Noise levels with enforcement of MM NOI-1 are shown in Figures 10, 11, 12, and 13. With incorporation of MM NOI-1, noise levels would not exceed limits from the City of San Diego Noise Abatement and Control Ordinance or the City of

Coronado Noise Abatement and Control Regulations at any use except Fifth Avenue Landing Park, San Diego Bayfront, and EMPS.

There is no feasible mitigation that would reduce noise levels without resulting in impacts to public access or conflicting with the objectives of the project. Impacts to Fifth Avenue Landing Park, San Diego Bayfront, and EMPS would be significant and unavoidable.

As discussed in Section 5.2.2.2, without mitigation the project would result in perceptible noise level increases in EMPS, Fifth Avenue Landing Park, San Diego Bayfront Park, and at the Hilton San Diego Bayfront. Criteria outlined in MM NOI-1 would require a minimum 5 dB(A) reduction between maximum and hourly average noise levels during evening hours and a minimum 10 dB(A) reduction between maximum and hourly average noise levels during nighttime hours. In addition to noise level reductions required by MM NOI-1, criteria outlined in MM NOI-3 would require sound amplification to be limited to 9 hours of less per day, and MM NOI-4 would require sound amplification during evening (7:00 p.m. to 10:00 p.m.) rehearsals to be limited to 100 minutes. With incorporation of MM NOI-1 and MM NOI-3, ambient noise level increases at Fifth Avenue Landing Park, San Diego Bayfront Park, and the Hilton San Diego Bayfront hotel would be lower than 3 CNEL on both event days and non-event days. Impacts from permanent noise level increases would be less than significant. With incorporation of MM NOI-1, MM NOI-3, and MM NOI-4 the project would continue to result in noise level increases at EMPS that are greater than 5 CNEL on event days; however, the project would no longer result in noise level increases that are greater than 5 CNEL on non-event days. Thus, incorporation of MM NOI-1, MM NOI-3, and MM NOI-4 would be anticipated to reduce the frequency that the project results in significant ambient noise level increases from 290 days per year to 116 days per year. Any single occurrence of a substantial noise level increase would be considered significant.

There is no feasible mitigation that would reduce noise levels increases at EMPS to below a level of significance without limiting public access or conflicting with the project objectives. Impacts to EMPS would be significant and unavoidable.

6.3 Traffic Noise

As shown in Table 8, during events and rehearsals the project would result in noise level increase of less than a decibel. A change of 5 dB(A) is readily perceptible to the human ear. Project-generated traffic would result in a lower than 5 CNEL increase along local roadways. Thus, project traffic would not result in a significant increase in traffic noise levels along local roadways.

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ATTACHMENTS

ATTACHMENT 1

Noise Measurement Data

Measurements Summary

Location	Meter	Start Time	Stop Time	L_{eq}	L_{min}	L_{max}	Start Time	Stop Time	L_{eq}	L_{min}	L_{max}
1 Coronado	3899	6:54 AM	10:02 PM	59.1	49.9	83.4	6:54 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	59.4 dB(A)	52.4 dB(A)	73.4 dB(A)
							8:00 PM	9:00 PM	59.4 dB(A)	51.8 dB(A)	73.3 dB(A)
							9:00 PM	10:00 PM	58.7 dB(A)	50.4 dB(A)	78.2 dB(A)
							10:00 PM	10:02 PM	-	-	-
2 Coronado	3895	6:49 AM	10:08 PM	60.3	45.9	88.4	6:49 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	55.7 dB(A)	47.6 dB(A)	76.0 dB(A)
							8:00 PM	9:00 PM	64.2 dB(A)	47.7 dB(A)	88.4 dB(A)
							9:00 PM	10:00 PM	56.3 dB(A)	46.6 dB(A)	80.3 dB(A)
							10:00 PM	10:08 PM	-	-	-
3 Ruocco	3899	6:39 AM	10:01 PM	55.4	49.2	78.6	6:39 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	55.7 dB(A)	49.9 dB(A)	73.8 dB(A)
							8:00 PM	9:00 PM	56.1 dB(A)	49.5 dB(A)	75.2 dB(A)
							9:00 PM	10:00 PM	54.4 dB(A)	49.8 dB(A)	64.7 dB(A)
							10:00 PM	10:01 PM	-	-	-
4 Embarcadero Marina	3899	7:00 AM	10:01 PM	56.4	50.5	78.3	7:00 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	56.4 dB(A)	51.4 dB(A)	74.5 dB(A)
							8:00 PM	9:00 PM	58.0 dB(A)	51.2 dB(A)	77.0 dB(A)
							9:00 PM	10:00 PM	53.8 dB(A)	50.7 dB(A)	70.1 dB(A)
							10:00 PM	10:01 PM	-	-	-
5 Hilton Bayfront	3899	7:00 AM	10:00 PM	51.9	45.1	70.8	7:00 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	53.6 dB(A)	46.2 dB(A)	67.7 dB(A)
							8:00 PM	9:00 PM	51.4 dB(A)	46.3 dB(A)	67.8 dB(A)
							9:00 PM	10:00 PM	49.8 dB(A)	45.3 dB(A)	60.6 dB(A)
							10:00 PM	10:00 PM	-	-	-
6 Childrens Park	3894	6:59 AM	10:00 PM	60.4	47.3	81.1	6:59 AM	7:00 PM	-	-	-
							7:00 PM	8:00 PM	57.9 dB(A)	48.7 dB(A)	73.1 dB(A)
							8:00 PM	9:00 PM	63.7 dB(A)	48.7 dB(A)	79.9 dB(A)
							9:00 PM	10:00 PM	54.9 dB(A)	47.5 dB(A)	67.3 dB(A)
							10:00 PM	10:00 PM	-	-	-

Min L_{eq}	49.8 dB(A)
Max L_{eq}	64.2 dB(A)

Summary			
Filename	LxT_Data.162		
Serial Number	3899		
Model	SoundTrack LxT®		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/09/16 18:54:10		
Stop	2016/09/16 22:01:55		
Duration	3:07:44.7		
Run Time	3:07:43.3		
Pause	0:00:01.4		
Pre Calibration	2016/09/16 18:43:48		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.6 dB		
	A	**C**	**Z**
Under Range Peak	**100.7**	97.7	102.7 dB
Under Range Limit	**37.4**	35.4	43.4 dB
Noise Floor	24.4	25.0	32.5 dB
Results			
LAeq	59.1 dB		
LAE	99.6 dB		
EA	1.022 mPa²h		
EA8	2.614 mPa²h		
EA40	13.069 mPa²h		
LApeak (max)	2016/09/16 20:37:08	107.4 dB	
LASmax	2016/09/16 21:16:38	83.4 dB	
LASmin	2016/09/16 22:00:24	49.9 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	69.6 dB		
LAeq	59.1 dB		
LCeq - LAeq	10.5 dB		
LAIeq	65.6 dB		
LAeq	59.1 dB		
LAIeq - LAeq	6.4 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	-99.9	0.00 %	
Projected Dose	-99.9	0.01 %	
TWA (Projected)	-99.9	19.1 dB	
TWA (t)	-99.9	12.3 dB	
Lep (t)	55.0	55.0 dB	
Statistics			
LAS5.00	63.5 dB		
LAS10.00	61.1 dB		
LAS33.30	57.1 dB		
LAS50.00	55.8 dB		
LAS66.60	54.7 dB		
LAS90.00	52.8 dB		

Calibration History		
Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1	2016/09/16 18:43:47	-50.7

Summary			
Filename	LxT_Data.348		
Serial Number	3895		
Model	SoundTrack LxT®		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/09/16 18:48:53		
Stop	2016/09/16 22:07:46		
Duration	3:18:52.9		
Run Time	3:14:29.9		
Pause	0:04:23.0		
Pre Calibration	2016/09/16 18:36:23		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1		
Microphone Correction	Off		
Integration Method	Linear		
Overload	144.4 dB		
	A	**C**	**Z**
Under Range Peak	**100.6**	97.6	102.6 dB
Under Range Limit	**37.3**	35.3	43.3 dB
Noise Floor	24.4	24.9	32.4 dB
Results			
LAeq	73.0 dB		
LAE	113.6 dB		
EA	25.695 mPa²h		
EA8	63.412 mPa²h		
EA40	317.061 mPa²h		
LApeak (max)	2016/09/16 19:48:09	121.7 dB	
LASmax	2016/09/16 19:48:10	111.3 dB	
LASmin	2016/09/16 22:03:43	45.7 dB	
SEA	138.6 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	4	15.8 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	73.0 dB		
LAeq	73.0 dB		
LCeq - LAeq	0.1 dB		
LAIeq	77.8 dB		
LAeq	73.0 dB		
LAIeq - LAeq	4.9 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	0.17	0.19 %	
Projected Dose	0.41	0.46 %	
TWA (Projected)	50.4	51.2 dB	
TWA (t)	43.9	44.7 dB	
Lep (t)	69.0	69.0 dB	
Statistics			
LAS5.00	61.1 dB		
LAS10.00	57.2 dB		
LAS33.30	52.1 dB		
LAS50.00	50.8 dB		
LAS66.60	49.7 dB		
LAS90.00	48.3 dB		

Calibration History		
Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1	2016/09/16 18:36:19	-50.6

Summary			
Filename	LxT_Data.108		
Serial Number	3827		
Model	SoundExpert™ LxT		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/09/16 18:39:17		
Stop	2016/09/16 22:00:35		
Duration	3:21:18.3		
Run Time	3:21:18.3		
Pause	0:00:00.0		
Pre Calibration	2016/09/16 18:38:36		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	At Lmax		
Overload	121.7 dB		
	A	**C**	**Z**
Under Range Peak	**77.9**	74.9	79.9 dB
Under Range Limit	**26.0**	25.2	32.0 dB
Noise Floor	16.2	16.1	21.9 dB
Results			
LAeq	55.4 dB		
LAE	96.2 dB		
EA	461.116 µPa²h		
LApeak (max)	2016/09/16 20:21:12	99.3 dB	
LASmax	2016/09/16 20:16:46	78.6 dB	
LASmin	2016/09/16 18:50:36	49.2 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	59.5	55.4	52.5	59.8	54.5	55.5	52.5

LCeq	69.1 dB		
LAeq	55.4 dB		
LCeq - LAeq	13.8 dB		
LAIeq	58.0 dB		
LAeq	55.4 dB		
LAIeq - LAeq	2.6 dB		
# Overloads	0		
Overload Duration	0.0 s		
# OBA Overloads	0		
OBA Overload Duration	0.0 s		
Statistics			
LAS5.00	58.8 dB		
LAS10.00	56.9 dB		
LAS33.30	53.8 dB		
LAS50.00	52.9 dB		
LAS66.60	52.1 dB		
LAS90.00	51.0 dB		

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2016/09/16 18:38:34	-28.0

Summary			
Filename	LxT_Data.344		
Serial Number	3896		
Model	SoundTrack LxT®		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/09/16 18:59:58		
Stop	2016/09/16 22:01:01		
Duration	3:01:02.9		
Run Time	3:01:02.9		
Pause	0:00:00.0		
Pre Calibration	2016/09/16 18:56:45		
Post Calibration	2016/09/16 22:03:19		
Calibration Deviation	0.00 dB		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	Direct		
Microphone Correction	Off		
Integration Method	Linear		
Overload	119.8 dB		
	A	**C**	**Z**
Under Range Peak	**76.0**	73.0	78.0 dB
Under Range Limit	**25.0**	23.0	31.0 dB
Noise Floor	11.8	12.5	20.1 dB
Results			
LAeq	56.4 dB		
LAE	96.7 dB		
EA	522.974 µPa²h		
EA8	1.387 mPa²h		
EA40	6.933 mPa²h		
LApeak (max)	2016/09/16 19:02:38	102.0 dB	
LASmax	2016/09/16 20:03:06	78.3 dB	
LASmin	2016/09/16 21:56:12	50.5 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	67.3 dB		
LAeq	56.4 dB		
LCeq - LAeq	11.0 dB		
LAIeq	60.1 dB		
LAeq	56.4 dB		
LAIeq - LAeq	3.7 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	-99.9	-99.9 %	
Projected Dose	-99.9	-99.9 %	
TWA (Projected)	-99.9	-99.9 dB	
TWA (t)	-99.9	-99.9 dB	
Lep (t)	52.1	52.1 dB	
Statistics			
LAS5.00	59.5 dB		
LAS10.00	57.2 dB		
LAS33.30	54.3 dB		
LAS50.00	53.5 dB		
LAS66.60	52.9 dB		
LAS90.00	51.8 dB		

Calibration History		
Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1	2016/09/16 22:02:09	-50.8
PRMLxT1	2016/09/16 18:56:10	-50.7

Summary			
Filename	LxT_Data.041		
Serial Number	3894		
Model	SoundTrack LxT®		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/09/16 19:00:02		
Stop	2016/09/16 22:00:09		
Duration	3:00:07.0		
Run Time	3:00:07.0		
Pause	0:00:00.0		
Pre Calibration	2016/09/16 18:51:57		
Post Calibration	2016/09/16 22:02:29		
Calibration Deviation	-0.08 dB		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	Direct		
Microphone Correction	Off		
Integration Method	Linear		
Overload	119.8 dB		
	A	**C**	**Z**
Under Range Peak	**76.0**	73.0	78.0 dB
Under Range Limit	**25.0**	23.0	31.0 dB
Noise Floor	11.8	12.5	20.1 dB
Results			
LAeq	51.9 dB		
LAE	92.2 dB		
EA	184.817 µPa²h		
EA8	492.527 µPa²h		
EA40	2.463 mPa²h		
LApeak (max)	2016/09/16 19:46:08	96.1 dB	
LASmax	2016/09/16 19:14:51	70.8 dB	
LASmin	2016/09/16 21:34:47	45.1 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LCeq	67.1 dB		
LAeq	51.9 dB		
LCeq - LAeq	15.3 dB		
LAIeq	55.3 dB		
LAeq	51.9 dB		
LAIeq - LAeq	3.4 dB		
# Overloads	0		
Overload Duration	0.0 s		
Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exch. Rate	5	5 dB	
Threshold	90	80 dB	
Criterion Level	90	90 dB	
Criterion Duration	8	8 h	
Results			
Dose	-99.9	-99.9 %	
Projected Dose	-99.9	-99.9 %	
TWA (Projected)	-99.9	-99.9 dB	
TWA (t)	-99.9	-99.9 dB	
Lep (t)	47.6	47.6 dB	
Statistics			
LAS5.00	55.5 dB		
LAS10.00	53.4 dB		
LAS33.30	50.4 dB		
LAS50.00	49.5 dB		
LAS66.60	48.7 dB		
LAS90.00	47.5 dB		
Calibration History			
Preamp	**Date**	**dB re. 1V/Pa**	
PRMLxT1	2016/09/16 22:02:17	-51.3	
PRMLxT1	2016/09/16 18:51:50	-51.3	

Summary	
Filename	LxT_Data.056
Serial Number	3828
Model	SoundExpert™ LxT
Firmware Version	2.301
User	
Location	
Job Description	
Note	
Measurement Description	
Start	2016/09/16 18:59:05
Stop	2016/09/16 21:59:41
Duration	3:00:35.9
Run Time	3:00:35.1
Pause	0:00:00.8
Pre Calibration	2016/09/16 18:38:20
Post Calibration	None
Calibration Deviation	---
Overall Settings	
RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	At Lmax
Overload	121.8 dB

	A	**C**	**Z**
Under Range Peak	**78.1**	75.1	80.1 dB
Under Range Limit	**26.0**	25.2	32.0 dB
Noise Floor	16.3	16.1	22.0 dB

Results		
LAeq	60.4 dB	
LAE	100.7 dB	
EA	1.317 mPa²h	
LApeak (max)	2016/09/16 20:38:29	111.6 dB
LASmax	2016/09/16 20:17:09	81.1 dB
LASmin	2016/09/16 21:22:18	47.3 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	60.4	60.4	-99.9	59.3	52.9	60.4	-99.9

LCeq	72.1 dB
LAeq	60.4 dB
LCeq - LAeq	11.7 dB
LAIeq	67.7 dB
LAeq	60.4 dB
LAIeq - LAeq	7.3 dB
# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	0
OBA Overload Duration	0.0 s
Statistics	
LAS5.00	65.2 dB
LAS10.00	61.5 dB
LAS33.30	54.9 dB
LAS50.00	53.4 dB
LAS66.60	52.2 dB
LAS90.00	50.3 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2016/09/16 18:38:13	-28.1

ATTACHMENT 2

San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events Project EIR Measurement Data

		LT-1: Shelter Island HPD Station, San Diego			LT-2: B Street Pier, San Diego						LT-3 Coronado Municipal Golf Course, San Diego						LT-4: E. 31st Street, National City			LT-5: Chula Vista Wildlife Reserve, Chula Vista			LT-6: Imperial Beach Lifeguard Tower		
Date	Time	Leq	Lmax	Lmin	Leq	Daytime hourly	Evening hourly	Nighttime hourly	Lmax	Lmin	Leq	Daytime hourly	Evening hourly	Nighttime hourly	Lmax	Lmin	Leq	Lmax	Lmin	Leq	Lmax	Lmin	Leq	Lmax	Lmin
7/3/2016	11:51:00 AM																						66.4	71.8	62.1
7/3/2016	11:52:00 AM																						66.5	72.5	62.3
7/3/2016	11:53:00 AM																						67.0	72.1	63.3
7/3/2016	11:54:00 AM																						67.1	73.0	62.5
7/3/2016	11:55:00 AM																						66.9	74.6	63.5
7/3/2016	11:56:00 AM																						67.6	77.1	64.3
7/3/2016	11:57:00 AM																						67.1	74.5	63.9
7/3/2016	11:58:00 AM																						67.4	77.2	63.4
7/3/2016	11:59:00 AM																						66.9	74.2	63.7
7/3/2016	12:00:00 PM	53.3	71.3	43.2	54.8	60.8			58.0	52.3													66.6	72.6	62.3
7/3/2016	12:01:00 PM	51.8	70.7	44.8	53.5				60.7	51.2													67.1	72.4	62.8
7/3/2016	12:02:00 PM	52.9	65.2	46.1	57.9				68.8	53.0													67.0	71.4	62.2
7/3/2016	12:03:00 PM	45.9	50.3	42.8	57.5				63.6	54.0													66.7	72.3	63.0
7/3/2016	12:04:00 PM	48.3	55.0	44.4	55.9				60.7	53.0													66.8	75.8	62.2
7/3/2016	12:05:00 PM	49.4	58.1	43.2	61.4				68.9	53.4													67.1	72.8	62.9
7/3/2016	12:06:00 PM	49.4	56.6	42.6	62.4				68.3	56.3													66.3	71.4	63.5
7/3/2016	12:07:00 PM	48.5	57.6	42.6	58.9				63.2	54.1													66.6	72.6	63.3
7/3/2016	12:08:00 PM	53.8	56.3	52.3	58.9				62.7	55.9													66.3	69.5	62.0
7/3/2016	12:09:00 PM	54.4	60.1	52.3	56.9				64.3	52.9													66.4	70.4	62.5
7/3/2016	12:10:00 PM	54.4	60.9	51.9	52.4				61.7	49.3													66.2	71.2	63.0
7/3/2016	12:11:00 PM	56.5	67.5	44.3	57.8				71.3	49.2													66.1	71.4	62.4
7/3/2016	12:12:00 PM	46.0	52.3	42.0	61.3				72.4	49.8													66.9	73.2	63.4
7/3/2016	12:13:00 PM	47.4	54.4	43.4	58.0				68.2	49.1													66.7	70.9	63.2
7/3/2016	12:14:00 PM	48.1	57.2	43.7	53.2				58.8	50.3													66.8	73.5	63.1
7/3/2016	12:15:00 PM	49.1	59.2	44.9	53.0				58.0	50.2													66.4	69.9	62.8
7/3/2016	12:16:00 PM	47.7	60.7	43.4	62.5				68.2	52.5													65.9	70.2	62.0
7/3/2016	12:17:00 PM	50.4	62.1	45.2	57.5				68.9	50.5													67.0	77.0	62.5
7/3/2016	12:18:00 PM	46.9	57.2	43.5	59.9				67.2	51.0													66.6	75.0	62.8
7/3/2016	12:19:00 PM	47.1	50.3	44.0	56.1				63.4	52.4													66.1	74.4	61.6
7/3/2016	12:20:00 PM	51.6	58.3	45.2	58.0				68.4	53.0													67.3	72.5	64.4
7/3/2016	12:21:00 PM	53.7	55.4	52.4	54.0				59.7	51.7													67.0	74.8	63.6
7/3/2016	12:22:00 PM	54.4	59.6	52.4	55.4				59.2	52.1													66.0	71.3	62.6
7/3/2016	12:23:00 PM	53.1	55.9	52.1	60.8				67.3	51.9													66.1	74.4	62.8
7/3/2016	12:24:00 PM	52.2	56.4	44.0	60.5				69.2	53.9													66.4	72.0	63.1
7/3/2016	12:25:00 PM	47.4	56.0	43.6	60.6				66.8	56.4													66.6	72.1	62.8
7/3/2016	12:26:00 PM	46.3	51.1	44.1	59.1				64.9	55.9													67.1	78.7	63.2
7/3/2016	12:27:00 PM	49.7	57.0	44.5	59.0				65.4	54.8													66.7	71.7	63.1
7/3/2016	12:28:00 PM	46.8	51.0	44.5	58.7				62.8	55.6													66.7	76.5	63.6
7/3/2016	12:29:00 PM	49.3	65.4	46.0	57.8				65.6	51.9													66.7	74.7	63.6
7/3/2016	12:30:00 PM	48.7	53.4	44.0	55.6				65.2	50.9													66.5	72.3	62.9
7/3/2016	12:31:00 PM	47.2	52.5	44.0	55.7				62.2	51.9													66.6	72.5	61.7
7/3/2016	12:32:00 PM	48.2	54.6	45.6	62.7				73.2	55.8													66.7	73.2	63.1
7/3/2016	12:33:00 PM	49.1	58.4	44.9	62.5				70.0	56.2													66.2	71.0	62.3
7/3/2016	12:34:00 PM	53.5	57.7	52.1	60.0				65.3	55.7													66.6	70.1	63.8
7/3/2016	12:35:00 PM	53.2	55.6	52.0	63.0				70.5	56.6													66.8	71.6	63.6
7/3/2016	12:36:00 PM	53.1	58.4	52.2	58.9				63.2	55.7													66.4	70.9	63.5
7/3/2016	12:37:00 PM	52.7	55.1	47.9	65.4				70.8	58.6													66.1	71.9	61.6
7/3/2016	12:38:00 PM	48.1	54.1	44.6	63.0				67.3	56.7													66.8	73.3	62.9
7/3/2016	12:39:00 PM	50.6	60.5	44.8	61.5				68.5	56.9													67.5	72.7	63.6
7/3/2016	12:40:00 PM	48.3	51.7	45.6	59.0				64.7	55.9													66.4	70.5	63.3
7/3/2016	12:41:00 PM	50.6	56.5	46.3	60.0				66.4	55.5													66.6	75.5	62.7
7/3/2016	12:42:00 PM	47.1	54.8	43.5	60.3				70.3	55.6													66.4	71.8	62.8
7/3/2016	12:43:00 PM	49.4	55.1	45.9	62.2				68.1	57.8													66.5	72.3	63.2
7/3/2016	12:44:00 PM	51.6	63.7	45.8	60.3				66.3	55.7													66.6	75.5	63.5
7/3/2016	12:45:00 PM	52.8	59.1	46.7	58.1				61.3	55.4													67.1	70.8	63.2
7/3/2016	12:46:00 PM	55.8	73.3	46.6	60.1				65.2	56.4													66.8	76.9	63.5
7/3/2016	12:47:00 PM	56.5	64.4	53.1	59.6				65.7	56.0													67.5	78.0	63.3
7/3/2016	12:48:00 PM	53.4	57.8	52.1	57.9				72.5	53.6													66.1	72.7	62.6
7/3/2016	12:49:00 PM	53.0	64.0	51.5	61.3				71.9	55.5													66.3	70.2	63.6
7/3/2016	12:50:00 PM	60.2	69.7	51.9	68.4				77.0	58.6													66.1	70.4	63.7
7/3/2016	12:51:00 PM	50.4	58.1	43.6	62.2				72.8	57.0													66.6	71.9	62.8
7/3/2016	12:52:00 PM	46.6	60.0	42.9	65.8				72.9	57.6													66.1	72.4	63.8
7/3/2016	12:53:00 PM	50.6	61.0	45.3	67.7				73.9	52.8													66.2	69.5	63.0
7/3/2016	12:54:00 PM	48.9	54.4	45.3	54.1				59.1	51.0													66.1	71.7	63.0
7/3/2016	12:55:00 PM	51.5	61.2	45.6	53.4				58.4	50.4													66.2	70.4	63.2
7/3/2016	12:56:00 PM	51.6	61.5	45.7	53.5				57.5	49.8													66.7	70.5	63.7
7/3/2016	12:57:00 PM	49.5	53.6	45.9	63.4				70.0	53.9													66.8	71.4	63.8
7/3/2016	12:58:00 PM	49.1	53.0	46.2	65.3				69.1	58.6													66.3	73.8	63.1
7/3/2016	12:59:00 PM	50.6	58.0	45.7	58.2				67.4	51.0													66.3	72.7	63.4
7/3/2016	1:00:00 PM	54.1	56.5	52.6	53.1	57.7			57.0	50.8	51.3	53.4			56.8	-							67.0	71.5	63.0
7/3/2016	1:01:00 PM	55.4	58.2	53.6	55.0				59.7	52.0	59.0				70.1	-							66.8	78.7	63.5
7/3/2016	1:02:00 PM	54.4	56.3	53.2	56.0				63.6	52.1	51.1				60.1	-							66.2	70.9	62.9
7/3/2016	1:03:00 PM	54.1	55.0	53.3	57.3				60.7	54.7	52.5				61.7	-							67.1	74.1	63.6
7/3/2016	1:04:00 PM	51.1	58.4	47.2	56.5				60.6	53.7	50.3				55.4	-							67.4	74.6	64.5
7/3/2016	1:05:00 PM	49.7	53.8	46.6	55.0				60.8	51.0	51.2				58.0	-							66.6	72.4	63.2
7/3/2016	1:06:00 PM	48.6	53.0	44.3	55.0				60.6	50.9	52.0				58.5	-							66.8	74.1	62.9
7/3/2016	1:07:00 PM	50.1	59.7	44.7	52.9				57.0	50.0	53.6				58.0	-							66.7	74.4	63.6
7/3/2016	1:08:00 PM	49.6	58.4	44.9	54.3				57.7	51.9	52.8				57.2	-							67.6	77.1	63.9
7/3/2016	1:09:00 PM	49.8	62.1	46.6	53.5				55.7	51.3	52.7				61.7	-							67.9	77.3	64.6
7/3/2016	1:10:00 PM	49.1	55.3	45.6	56.1				62.6	51.6	51.7				58.3	-							66.4	72.8	63.3
7/3/2016	1:11:00 PM	48.0	53.7	45.3	57.4				69.1	50.7	55.7				62.2	-							67.7	75.2	63.0
7/3/2016	1:12:00 PM	52.9	58.0	46.3	56.4				62.0	52.8	54.8				60.9	-							69.7	78.4	63.9
7/3/2016	1:13:00 PM	55.0	56.6	53.5	56.3				60.3	53.2	53.7				63.2	-							66.5	72.7	63.3
7/3/2016	1:14:00 PM	55.4	60.1	53.5	55.1				60.3	51.5	53.3				62.6	-							66.7	71.2	64.0
7/3/2016	1:15:00 PM	54.7	59.0	53.1	57.1				64.3	52.4	53.1				58.0	-							66.7	72.2	63.5
7/3/2016	1:16:00 PM	55.4	58.4	52.3	59.3				63.3	55.2	51.0				55.2	-							66.4	73.1	62.5
7/3/2016	1:17:00 PM	52.9	59.0	48.1	55.2				60.2	51.5	56.0				64.4	-							66.0	71.7	62.9
7/3/2016	1:18:00 PM	53.5	61.5	47.0	55.6				59.1	52.1	51.8				61.3	-							66.8	76.0	62.9
7/3/2016	1:19:00 PM	50.8	56.5	47.9	55.7				59.8	52.1	53.3				66.1	-							67.1	72.0	64.3
7/3/2016	1:20:00 PM	56.1	66.0	49.0	55.3				60.3	52.1	53.2				59.0	-							66.2	70.7	62.8
7/3/2016	1:21:00 PM	50.7	63.3	47.2	57.1				64.5	53.6	53.8				60.2	-							66.0	75.2	63.0
7/3/2016	1:22:00 PM	50.0	53.4	47.5	55.9				61.0	52.9	53.0				59.6	-							65.9	71.5	63.6
7/3/2016	1:23:00 PM	50.8	57.0	46.7	55.8				58.9	52.5	50.4				61.4	-							65.7	70.0	62.8
7/3/2016	1:24:00 PM	48.1	53.9	45.6	58.8				62.3	54.6	51.1				60.5	-							66.2	70.6	63.6
7/3/2016	1:25:00 PM	54.4	58.6	45.6	57.1				60.7	53.2	52.0				59.0	-							66.0	72.1	63.3
7/3/2016	1:26:00 PM	54.8	57.6	53.1	55.5				58.9	52.4	52.4				59.6	-							66.0	71.3	63.1
7/3/2016	1:27:00 PM	53.5	57.2	52.2	56.7				62.2	53.5	52.8				60.3	-							66.5	69.4	63.6
7/3/2016	1:28:00 PM	54.2	58.6	52.6	56.4				59.2	53.1	52.0				58.6	-							65.6	69.4	62.3
7/3/2016	1:29:00 PM	54.0	59.5	48.5	55.2				59.6	52.1	51.4				55.2	-							66.1	72.9	63.3
7/3/2016	1:30:00 PM	51.3	59.6	45.9	55.8				61.0	52.3	53.3				60.5	-							65.5	69.0	63.4
7/3/2016	1:31:00 PM	49.8	55.6	45.4	55.6				59.0	51.6	57.5				66.3	-							65.5	70.7	63.1
7/3/2016	1:32:00 PM	51.3	55.7	47.2	58.9				64.9	53.8	57.5				64.8	-							66.0	72.4	63.2
7/3/2016	1:33:00 PM	49.4	57.7	46.4	57.4				64.0	52.9	56.7				65.9	-							66.4	71.3	63.9
7/3/2016	1:34:00 PM	52.0	56.8	47.2	57.4				65.6	52.0	53.1				61.8	-							66.6	72.1	62.7
7/3/2016	1:35:00 PM	52.3	61.1	47.5	64.2				71.1	52.9	52.5				58.5	-							66.2	70.8	63.2
7/3/2016	1:36:00 PM	48.7	53.9	44.4	64.4				73.5	56.6	52.0				56.2	-							65.5	70.6	63.2
7/3/2016	1:37:00 PM	50.5	58.2	46.0	64.7				71.5	57.5	52.0				56.7	-							65.6	70.7	63.1
7/3/2016	1:38:00 PM	53.9	58.6	52.7	58.6				63.1	54.9	53.5				64.6	-							66.5	69.5	63.7
7/3/2016	1:39:00 PM	53.5	56.1	52.3	57.2				61.0	52.1	54.5				62.3	-							65.4	69.4	62.7
7/3/2016	1:40:00 PM	54.5	63.2	52.3	56.1				58.9	53.1	53.1				60.3	-							66.4	72.2	62.7
7/3/2016	1:41:00 PM	54.5	62.0	52.3	57.7				60.9	54.3	54.8				62.8	-							65.9	69.4	63.5
7/3/2016	1:42:00 PM	52.2	72.7	45.4	57.4				64.5	54.1	53.9				61.1	-							66.0	70.2	61.9
7/3/2016	1:43:00 PM	51.4	58.0	45.6	58.1				63.6	55.1	50.8				57.2	-							65.6	73.7	63.2
7/3/2016	1:44:00 PM	50.1	55.3	46.7	57.1				66.2	52.0	51.0				57.9	-							66.0	71.1	61.3
7/3/2016	1:45:00 PM	51.0	58.4	48.0	57.8				61.5	55.2	53.1				59.0	-							66.1	73.9	63.1
7/3/2016	1:46:00 PM	49.5	56.1	46.2	57.2				61.3	52.8	51.6				57.2	-							66.7	69.8	63.0
7/3/2016	1:47:00 PM	51.4	55.4	46.8	57.1				62.3	53.1	53.9				61.7	-							65.4	71.0	62.2
7/3/2016	1:48:00 PM	49.4	53.9	45.6	57.9				65.1	52.4	49.7				54.3	-							66.2	71.8	63.2
7/3/2016	1:49:00 PM	49.6	54.7	46.1	57.2				68.1	52.8	50.6				55.4	-							66.2	70.8	63.0
7/3/2016	1:50:00 PM	55.0	64.2	45.4	60.1				66.1	55.6	51.2				56.9	-							65.7	70.8	63.3
7/3/2016	1:51:00 PM	54.0	56.8	52.1	56.0				59.3	53.4	51.0				53.9	-							66.0	71.7	62.5
7/3/2016	1:52:00 PM	53.0	55.5	51.8	56.9				67.8	53.0	53.5				62.0	-							66.2	73.2	63.4
7/3/2016	1:53:00 PM	54.9	59.8	52.8	58.2				63.3	53.6	55.4				64.0	-							65.8	69.4	62.6
7/3/2016	1:54:00 PM	54.4	62.6	52.3	55.9				61.6	52.2	51.6				54.3	-							66.1	68.5	63.9
7/3/2016	1:55:00 PM	55.7	58.9	53.3	55.1				59.1	52.9	54.0				61.0	-							65.7	71.8	63.4
7/3/2016	1:56:00 PM	53.9	56.8	51.9	56.4				59.5	53.3	52.6				58.4	-							66.0	70.9	63.2
7/3/2016	1:57:00 PM	62.3	81.7	51.8	57.4				65.3	53.8	53.2				57.7	-							66.3	73.8	63.3
7/3/2016	1:58:00 PM	53.5	59.3	45.9	57.9				65.1	53.8	53.3				58.7	-							66.4	71.7	63.2
7/3/2016	1:59:00 PM	48.7	57.4	44.5	57.7				61.4	54.8	53.6				58.5	-							66.1	72.0	63.6
7/3/2016	2:00:00 PM	50.1	55.3	47.2	56.3	60.3			59.8	53.7	54.6	53.5			64.9	-				43.6	49.2	41.4	66.6	71.9	63.9
7/3/2016	2:01:00 PM	50.5	58.4	45.4	58.5				64.0	55.1	52.4				58.2	-				45.3	49.9	42.0	66.5	74.2	62.5
7/3/2016	2:02:00 PM	47.6	52.2	44.7	57.2				60.8	54.2	51.7				59.3	-				43.6	47.8	41.1	66.5	71.7	62.9
7/3/2016	2:03:00 PM	47.9	52.4	43.9	59.3				67.8	54.4	54.5				63.9	-				42.8	46.1	40.9	66.3	71.5	62.9
7/3/2016	2:04:00 PM	49.1	57.7	43.8	56.8				61.9	52.5	51.2				58.2	-				47.9	55.3	42.0	66.0	72.8	63.7
7/3/2016	2:05:00 PM	54.3	61.2	52.6	55.2				57.4	52.7	51.6				56.0	-				43.7	45.9	41.7	67.5	73.6	64.2
7/3/2016	2:06:00 PM	57.2	76.4	52.7	56.8				65.4	52.6	53.0				58.6	-				44.6	49.4	41.9	66.3	74.0	63.2
7/3/2016	2:07:00 PM	53.8	55.4	52.7	56.5				60.5	52.9	53.8				61.6	-				44.1	50.6	40.9	66.4	71.1	64.3
7/3/2016	2:08:00 PM	52.9	54.2	51.8	55.9				65.5	53.0	53.6				60.5	-				42.6	44.6	40.7	66.5	72.9	63.6
7/3/2016	2:09:00 PM	52.7	54.9	51.4	55.6				58.4	52.7	54.3				58.8	-				43.2	51.1	41.2	67.2	73.2	63.8
7/3/2016	2:10:00 PM	48.5	55.2	44.5	56.5				59.2	53.9	53.2				60.0	-				43.0	46.0	40.8	65.7	70.3	62.7
7/3/2016	2:11:00 PM	48.1	56.1	43.3	60.4				65.4	56.7	51.3				59.7	-				43.0	47.5	40.7	66.7	71.3	63.7
7/3/2016	2:12:00 PM	51.0	60.1	44.8	58.3				62.9	55.1	53.5				58.2	-				43.5	50.4	40.9	65.7	70.2	63.1

7/3/2016	2:13:00 PM	51.4	59.0	44.7	59.8		66.4	55.0	56.5		62.6	-				43.0	47.2	41.2	66.5	73.4	64.0
7/3/2016	2:14:00 PM	56.1	68.1	49.2	56.4		59.6	51.8	53.1		58.2	-				43.8	46.2	41.8	66.3	72.0	63.2
7/3/2016	2:15:00 PM	53.7	56.5	52.1	54.3		57.1	51.3	51.6		56.8	-				45.0	49.2	42.0	65.9	73.0	62.2
7/3/2016	2:16:00 PM	62.5	75.0	52.6	55.6		61.5	52.2	53.7		58.0	-				45.3	51.7	42.2	66.4	76.2	62.5
7/3/2016	2:17:00 PM	56.2	66.2	52.5	71.6		77.7	58.8	53.4		63.7	-				48.7	54.6	43.4	66.7	74.7	63.4
7/3/2016	2:18:00 PM	53.3	54.9	52.5	64.0		69.2	59.3	52.9		60.3	-				46.0	51.3	43.4	66.6	71.9	63.5
7/3/2016	2:19:00 PM	54.5	60.8	52.8	58.1		64.7	54.6	53.3		59.3	-				45.1	48.3	42.4	66.4	72.0	63.5
7/3/2016	2:20:00 PM	55.0	66.5	52.3	57.1		66.7	52.5	54.2		60.6	-				43.8	46.5	42.0	65.9	71.7	63.1
7/3/2016	2:21:00 PM	54.4	66.4	52.7	63.8		74.8	54.7	53.6		59.2	-				43.8	46.7	41.9	66.2	72.8	63.5
7/3/2016	2:22:00 PM	54.6	62.4	52.8	57.5		62.9	54.4	54.5		63.3	-				44.3	47.2	41.8	66.9	77.3	63.7
7/3/2016	2:23:00 PM	53.6	56.5	52.2	58.3		65.1	52.8	53.4		60.5	-				45.5	48.6	43.2	67.0	76.3	64.0
7/3/2016	2:24:00 PM	54.1	58.8	52.5	57.4		65.6	53.5	55.1		66.0	-				45.2	48.9	42.6	66.2	76.7	63.2
7/3/2016	2:25:00 PM	54.2	58.4	53.0	56.8		63.6	53.6	51.4		57.4	-				44.0	46.1	41.9	66.9	73.4	64.0
7/3/2016	2:26:00 PM	54.6	60.2	53.0	66.9		76.6	54.6	53.8		60.5	-				43.3	45.8	41.4	65.9	70.7	63.3
7/3/2016	2:27:00 PM	54.3	56.6	52.8	55.5		58.5	52.4	52.2		58.1	-				43.2	45.6	41.2	66.3	72.5	63.5
7/3/2016	2:28:00 PM	54.1	56.7	52.7	57.0		62.7	52.2	51.4		58.1	-				43.2	46.1	41.2	66.1	71.4	63.3
7/3/2016	2:29:00 PM	54.5	61.8	52.3	56.8		64.0	51.5	52.6		58.9	-				42.8	44.9	41.2	66.6	73.9	64.0
7/3/2016	2:30:00 PM	54.2	56.3	53.1	55.4		59.3	51.4	55.4		67.3	-				56.4	77.3	41.4	66.5	72.0	64.0
7/3/2016	2:31:00 PM	57.7	75.6	52.9	56.5		60.9	52.6	51.6		57.4	-				54.8	74.5	41.2	66.0	69.8	63.2
7/3/2016	2:32:00 PM	54.2	62.6	52.0	62.5		67.5	56.2	53.5		61.4	-				43.0	48.3	40.7	66.7	75.1	63.8
7/3/2016	2:33:00 PM	53.6	60.1	52.3	63.9		86.8	54.8	54.9		59.7	-				42.5	44.3	41.1	66.0	71.2	62.7
7/3/2016	2:34:00 PM	63.2	84.6	53.4	59.7		69.6	54.9	52.0		57.1	-				46.3	50.8	40.9	67.5	74.0	64.2
7/3/2016	2:35:00 PM	59.4	78.0	52.1	59.0		66.8	53.9	52.0		56.3	-				43.5	50.0	40.5	67.0	75.0	63.3
7/3/2016	2:36:00 PM	57.7	70.8	52.1	57.9		62.9	54.9	55.0		64.5	-				43.1	44.9	41.1	66.5	74.1	63.4
7/3/2016	2:37:00 PM	53.8	57.5	51.7	60.3		70.3	55.7	52.3		55.7	-				44.5	50.1	41.7	66.7	72.0	63.8
7/3/2016	2:38:00 PM	53.8	59.4	51.8	58.9		63.7	55.1	52.9		57.9	-				48.5	52.6	43.1	67.0	75.7	64.1
7/3/2016	2:39:00 PM	55.2	73.8	51.8	61.3		66.9	55.4	54.0		61.6	-				46.5	54.1	41.2	67.9	77.6	64.1
7/3/2016	2:40:00 PM	53.4	57.2	51.9	60.2		63.9	56.9	55.0		60.3	-				43.3	48.6	41.1	67.1	75.5	63.7
7/3/2016	2:41:00 PM	55.6	60.2	52.8	60.7		63.8	53.9	54.8		59.8	-				47.5	53.5	42.3	66.3	72.5	62.3
7/3/2016	2:42:00 PM	55.2	62.2	51.9	58.9		65.0	54.6	52.3		59.2	-				43.8	48.9	41.5	67.2	73.2	63.7
7/3/2016	2:43:00 PM	54.5	62.9	52.1	58.4		62.0	54.9	52.9		62.4	-				43.8	53.6	41.1	67.6	76.1	64.1
7/3/2016	2:44:00 PM	53.1	56.0	51.9	58.7		64.3	55.0	55.7		62.1	-				44.5	59.6	41.6	67.9	77.1	65.0
7/3/2016	2:45:00 PM	53.7	56.8	52.2	58.4		62.8	55.3	53.2		57.0	-				43.1	45.8	41.2	66.7	72.2	64.0
7/3/2016	2:46:00 PM	54.0	55.9	52.4	59.0		65.2	55.2	54.2		58.5	-				42.9	45.1	41.1	67.7	75.8	64.5
7/3/2016	2:47:00 PM	53.6	57.3	52.3	58.4		62.8	55.0	53.5		59.7	-				43.7	47.0	41.5	66.4	71.4	63.9
7/3/2016	2:48:00 PM	54.0	62.0	52.5	56.9		61.7	53.1	54.0		60.2	-				43.4	46.1	41.4	66.7	72.2	64.0
7/3/2016	2:49:00 PM	54.0	57.8	52.7	58.8		62.2	53.8	52.7		59.1	-				60.1	80.1	42.1	67.3	73.8	64.2
7/3/2016	2:50:00 PM	53.5	56.7	51.8	56.2		61.7	52.5	52.2		58.4	-				43.5	46.4	41.4	66.7	72.3	64.4
7/3/2016	2:51:00 PM	55.3	60.7	52.2	57.1		62.5	53.6	53.4		57.8	-				46.1	49.5	42.7	66.8	73.0	64.5
7/3/2016	2:52:00 PM	53.2	57.5	51.7	60.4		68.4	54.1	54.5		58.5	-				43.7	48.6	41.6	66.4	69.6	64.1
7/3/2016	2:53:00 PM	54.4	57.5	51.8	57.9		62.7	52.2	52.6		55.6	-				45.8	50.1	42.1	66.6	71.8	63.3
7/3/2016	2:54:00 PM	54.0	57.1	52.4	60.4		68.4	57.2	52.8		57.6	-				43.8	47.3	41.5	66.8	72.3	64.0
7/3/2016	2:55:00 PM	53.7	59.9	52.1	60.3		64.6	56.7	52.3		56.4	-				43.2	45.6	41.2	67.4	73.2	64.3
7/3/2016	2:56:00 PM	53.2	55.8	51.4	58.4		61.9	55.4	53.2		56.9	-				43.8	48.0	41.5	66.9	76.1	64.1
7/3/2016	2:57:00 PM	53.5	65.7	52.1	57.9		62.3	54.8	54.5		62.5	-				43.3	45.7	41.2	66.3	70.1	63.8
7/3/2016	2:58:00 PM	53.9	57.2	52.1	60.2		65.5	53.9	54.7		61.0	-				61.2	78.1	42.0	67.2	75.5	64.0
7/3/2016	2:59:00 PM	53.0	55.9	51.4	59.4		64.9	55.5	54.5		62.8	-				52.3	74.9	41.1	67.1	75.5	64.1
7/3/2016	3:00:00 PM	53.5	55.5	51.9	60.0	62.9	74.6	55.8	53.4	53.6	57.0	-	56.4	58.9	-	43.7	52.4	40.9	66.9	71.1	64.2
7/3/2016	3:01:00 PM	53.5	55.0	52.0	62.4		69.3	56.6	51.9		58.6	-	57.0	63.0	-	43.2	47.3	41.3	67.0	71.6	64.5
7/3/2016	3:02:00 PM	53.7	55.7	52.7	62.7		67.1	56.1	53.1		61.0	-	59.9	67.3	-	42.9	55.0	40.8	67.8	74.9	64.3
7/3/2016	3:03:00 PM	53.6	56.4	52.2	58.5		61.9	54.8	55.6		63.1	-	56.9	67.8	-	42.7	45.8	40.9	67.4	75.7	63.6
7/3/2016	3:04:00 PM	53.7	58.9	52.4	60.2		65.5	54.2	51.9		54.1	-	57.8	67.3	-	43.2	47.7	41.2	69.9	79.4	64.2
7/3/2016	3:05:00 PM	54.2	56.4	52.6	60.1		63.5	56.0	53.1		57.4	-	56.1	60.5	-	44.0	49.2	41.6	67.2	77.9	63.8
7/3/2016	3:06:00 PM	54.0	58.0	52.5	59.0		64.2	55.6	54.2		60.4	-	55.7	58.8	-	43.6	46.3	41.5	66.8	72.5	64.3
7/3/2016	3:07:00 PM	53.7	55.9	52.4	66.4		74.8	58.8	53.0		55.8	-	55.6	58.9	-	43.6	47.1	41.2	66.6	71.0	64.3
7/3/2016	3:08:00 PM	52.9	54.3	51.9	59.2		64.6	53.2	50.9		56.4	-	56.8	63.2	-	48.6	56.7	43.0	66.8	71.7	63.5
7/3/2016	3:09:00 PM	53.2	54.7	52.3	60.1		65.1	56.6	54.3		61.5	-	55.9	58.6	-	43.4	46.6	41.6	67.0	72.1	64.4
7/3/2016	3:10:00 PM	55.3	66.7	52.7	60.0		66.8	55.5	54.1		60.9	-	56.4	63.0	-	44.3	51.4	41.8	67.5	74.1	64.5
7/3/2016	3:11:00 PM	53.3	54.8	52.3	61.3		66.5	57.4	56.8		78.8	-	56.5	60.0	-	45.1	51.3	42.2	67.2	72.6	64.1
7/3/2016	3:12:00 PM	53.9	60.7	52.0	61.2		67.6	57.4	51.7		56.5	-	56.2	60.6	-	43.6	49.6	40.6	67.0	73.3	63.9
7/3/2016	3:13:00 PM	53.5	57.9	52.2	66.1		74.8	59.2	51.8		58.0	-	56.6	60.6	-	43.1	49.9	41.2	68.1	73.3	65.3
7/3/2016	3:14:00 PM	53.6	58.3	52.0	61.8		66.6	57.0	51.5		57.9	-	57.2	60.5	-	43.2	47.5	40.7	67.9	75.4	64.6
7/3/2016	3:15:00 PM	53.0	57.3	51.6	61.7		67.7	56.6	51.8		56.0	-	56.7	59.4	-	43.6	54.2	40.6	67.8	73.9	64.5
7/3/2016	3:16:00 PM	53.0	54.8	51.6	62.8		67.1	58.1	53.2		64.0	-	58.5	70.8	-	44.6	50.4	41.6	68.2	75.7	64.5
7/3/2016	3:17:00 PM	53.2	54.9	52.0	63.4		67.7	58.9	54.4		66.4	-	55.9	58.7	-	43.3	48.1	41.0	68.4	78.3	64.7
7/3/2016	3:18:00 PM	53.2	55.9	52.1	62.6		68.2	57.5	54.8		65.4	-	56.6	61.0	-	42.5	50.2	40.0	67.2	72.6	64.4
7/3/2016	3:19:00 PM	54.1	58.2	52.3	60.0		65.7	54.8	51.8		59.2	-	56.1	58.9	-	42.6	45.5	40.6	67.2	72.0	63.6
7/3/2016	3:20:00 PM	54.8	60.8	53.4	61.8		68.0	53.8	51.9		63.3	-	55.7	58.9	-	42.6	45.2	40.8	67.0	74.3	64.5
7/3/2016	3:21:00 PM	54.9	64.4	53.6	57.2		65.4	53.5	54.2		62.4	-	55.1	59.3	-	43.9	58.9	40.7	67.3	70.8	64.7
7/3/2016	3:22:00 PM	57.1	75.3	53.9	56.0		58.9	53.2	57.5		64.9	-	55.5	57.9	-	42.9	56.1	40.8	68.4	80.0	64.8
7/3/2016	3:23:00 PM	56.3	62.3	54.9	60.0		65.9	53.5	53.9		60.3	-	56.9	60.7	-	43.3	56.9	41.1	68.3	77.3	65.3
7/3/2016	3:24:00 PM	55.9	59.6	52.7	61.8		65.6	57.3	53.5		58.5	-	57.3	64.5	-	43.5	47.0	41.3	67.5	73.0	64.8
7/3/2016	3:25:00 PM	61.5	82.5	52.4	62.4		67.8	57.7	54.6		61.4	-	56.1	59.6	-	42.8	45.3	40.7	67.0	71.0	64.4
7/3/2016	3:26:00 PM	65.4	89.1	52.4	58.7		64.7	54.1	54.7		59.0	-	56.1	59.9	-	42.6	47.0	40.8	67.6	73.4	64.8
7/3/2016	3:27:00 PM	53.7	70.7	52.0	59.3		63.1	53.4	53.7		59.9	-	56.0	61.2	-	44.4	58.2	41.6	67.2	73.8	63.9
7/3/2016	3:28:00 PM	53.8	60.4	52.0	59.0		67.1	52.8	54.3		62.8	-	57.5	66.9	-	46.6	53.1	42.0	67.3	75.8	65.0
7/3/2016	3:29:00 PM	53.1	55.8	52.0	61.0		67.3	56.1	54.0		62.1	-	55.8	59.8	-	45.4	50.3	42.4	67.8	71.6	65.3
7/3/2016	3:30:00 PM	53.5	58.2	52.4	63.4		70.3	57.6	51.7		57.9	-	56.0	59.2	-	43.5	56.2	40.5	67.2	72.1	64.7
7/3/2016	3:31:00 PM	56.5	75.2	52.8	62.7		66.1	59.3	51.2		56.8	-	57.2	62.5	-	43.4	46.3	41.1	67.3	73.3	64.4
7/3/2016	3:32:00 PM	55.1	60.7	53.0	62.9		67.3	58.8	51.9		54.8	-	56.3	60.4	-	43.6	47.3	41.5	68.1	73.7	64.9
7/3/2016	3:33:00 PM	56.5	68.0	52.5	63.6		67.8	56.2	56.0		63.9	-	56.5	62.7	-	44.2	47.9	41.8	68.3	76.6	64.7
7/3/2016	3:34:00 PM	54.1	56.9	52.5	62.4		69.1	54.6	53.2		59.1	-	56.9	61.6	-	44.2	54.3	41.3	68.8	80.0	64.4
7/3/2016	3:35:00 PM	54.4	57.2	52.8	62.4		68.3	55.3	52.2		56.8	-	56.6	60.5	-	43.7	47.1	41.7	67.4	72.2	64.4
7/3/2016	3:36:00 PM	53.4	56.4	52.3	62.7		67.1	56.5	51.5		58.0	-	58.4	70.3	-	43.6	47.9	41.5	67.6	75.8	64.7
7/3/2016	3:37:00 PM	53.8	57.5	52.6	63.0		70.3	57.3	52.9		59.2	-	56.9	60.9	-	42.5	44.8	41.0	69.2	78.2	63.9
7/3/2016	3:38:00 PM	53.6	55.8	52.3	62.6		71.4	57.1	51.3		55.9	-	56.8	63.9	-	42.6	44.6	40.7	67.9	73.3	64.6
7/3/2016	3:39:00 PM	53.9	56.1	52.5	62.7		68.4	57.0	52.3		57.5	-	56.9	60.8	-	42.9	47.2	40.8	67.8	71.9	65.7
7/3/2016	3:40:00 PM	54.3	55.8	53.1	64.5		72.2	59.1	53.4		59.8	-	57.8	67.9	-	42.8	46.1	40.9	68.4	75.9	64.6
7/3/2016	3:41:00 PM	54.0	55.8	52.4	63.8		70.4	56.1	53.2		58.3	-	58.0	68.7	-	43.0	47.5	40.4	67.2	72.3	64.2
7/3/2016	3:42:00 PM	53.7	55.8	52.4	64.3		73.1	53.9	52.5		57.7	-	55.2	63.6	-	43.9	47.5	42.0	68.1	79.1	64.4
7/3/2016	3:43:00 PM	54.0	60.8	52.4	62.4		67.5	53.6	50.0		52.6	-	56.2	61.9	-	43.4	46.6	41.7	69.7	74.7	64.8
7/3/2016	3:44:00 PM	54.6	61.3	52.3	61.3		67.8	54.0	53.9		59.3	-	56.2	58.7	-	43.8	47.6	41.4	67.7	75.1	64.2
7/3/2016	3:45:00 PM	53.4	55.6	51.9	63.2		70.8	57.7	54.2		59.4	-	56.0	62.6	-	42.8	47.3	40.9	68.5	74.5	64.8
7/3/2016	3:46:00 PM	53.7	55.1	52.3	63.0		69.7	58.3	52.8		60.3	-	56.4	60.9	-	45.4	50.4	41.2	67.7	73.2	64.7
7/3/2016	3:47:00 PM	53.9	61.5	52.6	64.0		71.9	56.0	52.7		60.7	-	57.2	62.9	-	43.6	46.8	41.3	69.0	76.8	64.9
7/3/2016	3:48:00 PM	54.0	57.4	52.5	63.4		72.0	57.2	54.2		65.3	-	56.2	59.2	-	43.3	46.6	41.1	68.1	74.8	65.2
7/3/2016	3:49:00 PM	53.9	60.2	52.6	64.6		69.0	59.9	53.1		61.0	-	55.6	60.2	-	48.4	56.8	41.3	68.3	74.6	64.5
7/3/2016	3:50:00 PM	56.7	66.4	53.6	66.5		72.1	58.6	52.4		56.8	-	58.5	70.4	-	50.3	60.9	41.7	67.8	75.0	64.3
7/3/2016	3:51:00 PM	53.9	58.3	52.8	65.6		70.4	59.2	55.7		63.4	-	56.4	61.1	-	43.5	45.9	41.3	68.2	75.3	65.0
7/3/2016	3:52:00 PM	53.6	58.7	52.4	65.0		69.5	60.1	52.9		58.6	-	57.4	63.0	-	43.5	46.4	41.2	68.2	73.6	64.7
7/3/2016	3:53:00 PM	53.8	57.7	52.2	63.7		67.4	59.3	51.0		55.0	-	57.2	60.9	-	43.8	47.1	41.3	67.3	71.9	64.0
7/3/2016	3:54:00 PM	54.6	60.1	53.0	63.5		66.8	58.0	57.0		65.4	-	56.7	63.2	-	44.0	49.0	40.9	68.4	76.7	65.1
7/3/2016	3:55:00 PM	54.3	57.8	53.0	63.9		68.1	54.6	53.8		59.1	-	56.0	59.8	-	44.0	47.3	41.5	67.8	73.7	64.1
7/3/2016	3:56:00 PM	53.4	54.5	52.4	65.9		72.3	54.5	55.6		65.2	-	55.2	60.2	-	42.2	46.1	40.6	68.5	75.5	65.2
7/3/2016	3:57:00 PM	53.3	55.5	52.2	64.3		70.5	55.3	53.9		61.5	-	55.4	59.7	-	42.6	45.1	40.7	68.3	74.7	65.0
7/3/2016	3:58:00 PM	54.9	65.8	52.5	65.7		72.5	58.0	54.9		62.1	-	56.6	62.9	-	42.7	47.7	40.5	68.9	78.0	65.3
7/3/2016	3:59:00 PM	54.7	59.3	52.7	65.8		76.2	58.5	53.2		59.2	-	57.0	64.3	-	42.9	46.1	41.0	67.7	73.2	64.4
7/3/2016	4:00:00 PM	54.4	58.5	52.3	64.9	65.0	69.2	59.2	54.4	54.3	59.3	-	57.6	69.7	-	43.0	47.3	41.3	67.5	71.9	64.9
7/3/2016	4:01:00 PM	53.5	57.6	52.4	65.9		70.0	59.5	51.0		54.5	-	56.5	60.5	-	42.7	45.2	40.0	67.8	73.3	64.4
7/3/2016	4:02:00 PM	53.7	55.8	52.7	63.5		69.4	59.0	54.3		63.0	-	58.9	67.1	-	43.3	49.1	41.1	68.4	75.3	65.1
7/3/2016	4:03:00 PM	55.2	60.4	53.0	64.5		70.1	57.6	53.4		57.8	-	59.1	68.6	-	43.0	47.1	41.0	68.8	76.5	65.4
7/3/2016	4:04:00 PM	54.3	57.2	52.3	64.4		69.1	59.4	52.1		58.3	-	57.0	67.2	-	56.3	75.9	40.8	68.6	75.4	64.2
7/3/2016	4:05:00 PM	53.9	55.8	52.8	66.9		71.6	56.7	51.5		61.4	-	56.7	59.6	-	43.5	46.4	40.8	68.0	74.0	65.1
7/3/2016	4:06:00 PM	55.5	61.2	53.2	66.7		70.8	58.1	52.6		60.7	-	57.9	62.2	-	43.8	51.2	41.7	68.7	75.7	65.2
7/3/2016	4:07:00 PM	57.2	63.0	52.8	63.6		67.6	57.2	55.6		63.6	-	58.3	63.8	-	42.9	46.4	41.2	68.6	73.7	65.4
7/3/2016	4:08:00 PM	53.7	55.6	52.3	64.6		67.9	59.2	54.5		64.4	-	57.8	62.8	-	43.3	46.2	41.4	67.5	72.1	64.1
7/3/2016	4:09:00 PM	53.7	60.6	52.4	65.4		71.5	60.7	55.0		59.4	-	57.0	68.3	-	43.5	46.9	41.5	68.2	74.2	65.2
7/3/2016	4:10:00 PM	54.0	60.1	52.6	64.2		72.8	54.5	55.7		61.8	-	57.5	62.9	-	43.3	50.3	41.0	68.8	75.4	65.2
7/3/2016	4:11:00 PM	53.5	58.6	52.3	64.7		70.2	57.6	54.5		62.9	-	57.7	63.3	-	43.2	46.3	41.3	67.6	73.8	65.1
7/3/2016	4:12:00 PM	55.9	59.8	53.1	63.3		69.6	57.1	56.4		62.4	-	57.8	65.4	-	43.3	45.7	41.1	68.4	75.3	65.2
7/3/2016	4:13:00 PM	54.9	57.8	52.9	63.7		67.7	56.2	53.5		60.2	-	57.0	62.4	-	43.2	45.5	41.6	68.3	73.3	65.1
7/3/2016	4:14:00 PM	54.6	66.0	52.5	64.6		72.1	55.3	54.2		57.3	-	57.5	66.2	-	43.7	48.5	41.9	68.4	73.5	64.4
7/3/2016	4:15:00 PM	54.1	55.9	52.8	63.8		71.7	56.8	54.5		61.6	-	57.7	63.0	-	43.0	44.7	41.2	68.3	74.8	64.7
7/3/2016	4:16:00 PM	54.5	58.9	53.1	67.2		72.5	62.6	52.7		60.4	-	60.1	71.9	-	42.5	45.0	40.6	68.5	73.9	65.1
7/3/2016	4:17:00 PM	54.8	63.0	53.1	64.9		70.3	55.4	57.0		69.6	-	57.4	62.8	-	42.7	45.3	40.9	68.6	76.4	65.1
7/3/2016	4:18:00 PM	57.8	60.7	55.2	61.8		70.2	56.3	55.1		61.4	-	56.5	59.1	-	42.9	45.4	41.3	68.5	73.0	65.3
7/3/2016	4:19:00 PM	54.8	61.3	52.2	64.9		69.4	58.2	53.8		60.1	-	56.5	59.4	-	42.7	45.6	41.0	68.5	74.6	64.5
7/3/2016	4:20:00 PM	53.1	56.6	52.1	63.5		70.0	56.9	50.9		55.5	-	57.2	66.8	-	43.7	46.5	40.9	67.9	73.3	65.1
7/3/2016	4:21:00 PM	53.3	56.9	52.3	66.5		75.4	57.9	50.9		54.6	-	58.2	67.8	-	44.2	51.5	42.0	68.6	73.9	65.8
7/3/2016	4:22:00 PM	54.7	65.6	52.5	66.9		75.1	57.9	53.9		59.0	-	59.1	67.8	-	44.5	53.3	41.6	68.8	73.6	65.8
7/3/2016	4:23:00 PM	56.0	65.9	53.7	64.9		69.1	58.4	53.1		60.9	-	56.6	61.8	-	43.6	46.1	41.2	68.7	74.4	64.9
7/3/2016	4:24:00 PM	57.1	68.7	52.8	65.0		68.8	59.7	54.5		61.8	-	56.3	61.4	-	43.7	45.4	41.8	68.6	74.2	64.8
7/3/2016	4:25:00 PM	53.7	60.1	52.3	65.1		74.8	59.1	53.2		58.8	-	58.4	66.2	-	44.1	48.0	42.3	69.0	78.0	65.5
7/3/2016	4:26:00 PM	53.8	58.1	52.4	65.3		70.8	57.8	52.7		58.1	-

7/3/2016	4:39:00 PM	51.4	59.7	47.6	65.6		73.6	57.5	53.6		59.5	-	57.9	62.7	-	44.7	47.5	42.0	68.7	75.2	65.3
7/3/2016	4:40:00 PM	49.7	54.6	46.3	66.1		71.4	61.4	54.6		61.5	-	57.6	64.6	-	55.8	76.0	41.7	69.4	76.4	66.1
7/3/2016	4:41:00 PM	49.7	55.0	46.2	64.4		72.7	56.8	53.1		66.3	-	57.5	60.7	-	58.7	78.6	41.7	68.9	75.7	64.4
7/3/2016	4:42:00 PM	49.8	53.6	46.0	66.3		71.4	59.8	53.0		59.5	-	59.9	69.5	-	43.3	45.6	41.5	68.3	73.3	64.8
7/3/2016	4:43:00 PM	52.5	59.6	48.6	64.9		70.1	57.8	52.4		60.5	-	57.9	62.4	-	43.5	49.3	41.4	69.0	76.5	65.3
7/3/2016	4:44:00 PM	50.6	54.4	48.7	66.3		72.7	55.3	54.7		58.9	-	57.3	60.4	-	43.9	46.0	41.9	68.6	72.6	65.2
7/3/2016	4:45:00 PM	51.5	54.6	49.7	57.5		62.9	52.1	55.2		60.3	-	62.9	75.7	-	43.4	45.3	41.5	68.3	73.7	64.9
7/3/2016	4:46:00 PM	53.1	58.9	46.6	60.6		66.8	55.2	55.3		63.1	-	58.1	70.2	-	43.4	45.4	41.7	69.2	74.3	64.7
7/3/2016	4:47:00 PM	51.9	58.6	45.8	65.4		72.8	58.3	52.3		56.3	-	63.1	76.0	-	43.8	52.7	41.6	67.8	72.8	64.8
7/3/2016	4:48:00 PM	53.4	56.6	50.4	66.3		74.4	59.0	53.7		60.1	-	57.6	61.7	-	43.9	55.2	41.7	68.4	76.0	65.4
7/3/2016	4:49:00 PM	51.8	56.4	45.8	62.0		66.0	57.7	54.3		58.3	-	57.0	61.5	-	43.3	45.0	41.6	69.0	76.4	66.0
7/3/2016	4:50:00 PM	48.8	56.3	45.3	60.5		63.3	57.8	55.2		76.3	-	56.4	61.5	-	43.7	46.0	41.7	68.4	71.9	65.3
7/3/2016	4:51:00 PM	50.0	55.3	45.8	60.6		64.7	55.9	54.3		58.2	-	57.1	62.8	-	43.7	46.0	41.7	67.9	74.3	65.3
7/3/2016	4:52:00 PM	49.8	55.1	44.7	61.1		66.0	55.1	54.7		59.5	-	56.7	60.8	-	43.7	45.3	41.9	68.5	73.7	64.3
7/3/2016	4:53:00 PM	47.2	50.6	44.5	61.8		66.3	56.3	57.4		62.0	-	56.6	59.5	-	43.7	45.9	42.1	69.0	74.5	65.2
7/3/2016	4:54:00 PM	48.3	63.5	45.0	62.7		71.8	57.0	56.1		65.5	-	56.2	61.6	-	43.1	46.1	41.5	69.3	75.8	66.4
7/3/2016	4:55:00 PM	53.7	65.1	46.7	64.6		73.4	55.7	53.3		57.5	-	56.1	60.5	-	42.7	45.5	41.1	68.5	74.4	63.5
7/3/2016	4:56:00 PM	50.8	57.6	46.1	60.2		63.6	56.0	55.5		61.1	-	60.3	73.4	-	43.1	45.8	41.0	68.3	76.3	64.8
7/3/2016	4:57:00 PM	52.3	58.1	46.6	62.9		67.3	55.7	54.7		60.4	-	62.6	78.6	-	43.5	47.0	41.0	68.6	75.7	64.9
7/3/2016	4:58:00 PM	52.5	68.2	47.5	61.3		73.5	55.5	55.8		60.4	-	57.2	68.2	-	43.1	46.0	41.3	68.2	71.9	64.8
7/3/2016	4:59:00 PM	51.4	64.5	47.5	63.8		72.2	58.5	55.1		62.6	-	56.2	60.1	-	44.5	50.6	41.5	67.8	73.0	64.0
7/3/2016	5:00:00 PM	51.2	61.8	46.8	61.7	65.8	65.3	58.2	54.4	54.8	63.3	-	57.7	66.2	-	45.9	57.5	41.9	68.2	73.4	64.1
7/3/2016	5:01:00 PM	49.5	55.5	45.4	61.5		64.2	57.7	56.5		61.0	-	56.5	62.5	-	44.8	55.4	41.5	68.1	72.5	64.4
7/3/2016	5:02:00 PM	52.8	59.4	45.6	64.0		70.6	57.5	53.6		64.4	-	56.1	61.3	-	42.9	45.8	40.9	68.5	74.8	63.9
7/3/2016	5:03:00 PM	54.6	61.1	53.0	61.2		65.7	54.1	53.7		73.0	-	56.7	61.1	-	45.2	52.7	41.6	68.0	75.5	64.5
7/3/2016	5:04:00 PM	54.3	65.4	52.1	60.8		64.7	54.8	55.9		61.0	-	55.5	58.4	-	44.2	56.5	41.4	68.6	76.1	65.2
7/3/2016	5:05:00 PM	53.2	58.3	51.7	61.9		65.7	55.7	56.4		60.2	-	55.0	59.7	-	46.8	53.9	43.3	67.7	73.6	64.8
7/3/2016	5:06:00 PM	52.4	56.9	46.1	62.9		66.5	57.0	52.1		58.1	-	55.1	58.4	-	44.5	49.1	41.9	68.0	72.1	64.7
7/3/2016	5:07:00 PM	56.2	66.2	48.0	61.7		66.2	55.2	53.4		63.3	-	54.9	60.8	-	43.3	45.8	41.5	69.4	75.7	65.8
7/3/2016	5:08:00 PM	50.3	54.6	46.0	63.8		71.6	58.4	52.1		57.1	-	55.2	59.6	-	43.9	47.5	41.6	68.4	73.7	65.2
7/3/2016	5:09:00 PM	50.6	55.8	46.3	63.7		69.4	59.1	54.9		62.5	-	55.7	60.5	-	43.9	49.7	41.2	68.2	71.4	65.7
7/3/2016	5:10:00 PM	51.3	66.9	45.6	65.6		70.5	57.5	54.6		60.4	-	54.6	58.7	-	44.8	59.5	42.6	68.3	76.9	63.8
7/3/2016	5:11:00 PM	53.7	64.1	46.2	64.0		69.9	57.2	54.1		61.2	-	56.8	60.6	-	43.9	46.4	42.0	67.9	74.0	64.3
7/3/2016	5:12:00 PM	50.8	58.6	44.7	64.7		69.6	58.9	53.7		61.7	-	56.1	59.9	-	44.3	54.5	42.4	68.7	75.0	64.9
7/3/2016	5:13:00 PM	49.3	55.0	46.0	65.5		75.8	57.6	54.4		60.7	-	58.5	71.0	-	44.1	48.0	41.6	68.0	72.7	65.2
7/3/2016	5:14:00 PM	47.2	52.8	44.8	64.3		71.2	54.8	51.2		56.3	-	56.7	61.5	-	44.5	51.0	42.4	68.3	70.9	65.4
7/3/2016	5:15:00 PM	50.5	59.8	44.3	62.1		69.1	55.5	51.4		57.1	-	56.7	63.9	-	44.0	47.2	41.9	68.5	72.1	65.0
7/3/2016	5:16:00 PM	54.0	58.0	52.7	66.3		72.5	58.4	52.1		60.7	-	56.1	60.3	-	45.7	55.7	42.7	68.7	72.2	65.7
7/3/2016	5:17:00 PM	54.7	58.7	52.3	65.8		71.0	57.9	54.4		59.5	-	56.2	59.0	-	45.1	47.9	42.9	68.2	74.7	64.6
7/3/2016	5:18:00 PM	53.7	55.6	52.0	67.1		70.8	56.8	52.9		58.4	-	55.8	59.0	-	45.4	54.2	42.4	69.3	78.0	65.4
7/3/2016	5:19:00 PM	53.9	57.3	51.0	67.4		73.5	61.4	52.0		56.1	-	62.9	78.3	-	47.6	51.2	44.2	69.2	75.9	65.2
7/3/2016	5:20:00 PM	50.7	56.0	46.9	65.5		70.2	55.2	51.2		56.4	-	56.6	66.4	-	45.6	49.2	43.1	68.6	73.7	65.1
7/3/2016	5:21:00 PM	51.3	58.8	45.4	65.6		69.9	56.8	51.8		55.8	-	55.6	61.0	-	46.0	60.0	42.8	68.1	75.8	63.2
7/3/2016	5:22:00 PM	58.1	69.4	47.3	64.3		71.4	57.4	53.9		59.2	-	56.5	60.8	-	44.5	48.6	42.0	68.3	72.1	64.6
7/3/2016	5:23:00 PM	48.2	52.1	45.8	65.8		70.7	56.2	55.4		59.6	-	56.2	63.6	-	45.1	49.3	42.4	67.7	75.1	65.0
7/3/2016	5:24:00 PM	51.4	61.4	45.9	65.7		71.9	60.2	54.4		61.4	-	57.7	65.4	-	47.2	51.7	42.2	68.1	75.7	64.5
7/3/2016	5:25:00 PM	50.9	58.5	45.6	65.8		71.2	55.1	51.3		55.1	-	55.6	58.8	-	44.2	50.1	41.9	68.4	74.6	64.8
7/3/2016	5:26:00 PM	51.6	57.0	46.9	65.3		70.5	55.9	50.8		55.3	-	55.7	59.3	-	43.7	47.0	41.5	68.6	72.6	62.9
7/3/2016	5:27:00 PM	51.7	60.2	45.4	64.5		77.0	54.6	51.1		55.5	-	56.0	60.9	-	43.6	46.3	41.9	69.0	76.4	65.4
7/3/2016	5:28:00 PM	54.2	56.1	53.0	64.8		69.2	57.7	54.2		62.3	-	61.6	74.9	-	43.3	48.5	41.1	68.6	74.5	64.8
7/3/2016	5:29:00 PM	54.9	58.6	53.1	66.5		71.0	57.6	53.9		63.2	-	57.8	67.7	-	43.6	47.2	40.7	67.9	72.3	64.9
7/3/2016	5:30:00 PM	54.3	58.0	52.3	67.1		75.3	58.9	51.6		71.6	-	56.3	63.3	-	45.1	57.9	42.0	68.0	73.7	64.2
7/3/2016	5:31:00 PM	53.4	56.1	52.0	66.6		72.0	58.1	50.1		56.6	-	55.4	58.2	-	43.8	49.3	41.3	68.6	76.1	63.8
7/3/2016	5:32:00 PM	51.7	56.9	47.1	67.3		71.1	63.4	53.5		63.2	-	56.5	60.6	-	43.7	50.8	41.8	68.5	75.3	63.8
7/3/2016	5:33:00 PM	49.5	54.0	47.0	64.6		71.6	55.0	54.5		62.3	-	56.0	60.0	-	44.4	50.8	42.1	68.6	72.9	66.1
7/3/2016	5:34:00 PM	50.7	55.7	46.5	65.6		70.2	57.1	53.4		62.8	-	57.1	60.7	-	45.4	50.5	42.8	68.3	74.6	64.2
7/3/2016	5:35:00 PM	53.9	66.7	46.0	65.6		71.7	57.9	56.6		65.4	-	57.1	61.2	-	44.8	48.8	42.6	68.3	73.7	64.6
7/3/2016	5:36:00 PM	52.5	65.9	45.8	65.4		72.1	58.2	57.1		65.3	-	56.3	58.6	-	44.8	50.5	42.3	68.4	73.7	64.8
7/3/2016	5:37:00 PM	51.1	58.2	47.5	68.7		74.4	62.9	58.3		66.9	-	55.7	58.1	-	44.9	48.6	42.4	68.8	80.4	65.2
7/3/2016	5:38:00 PM	49.2	57.5	45.1	67.4		76.9	59.7	62.3		77.5	-	55.9	60.5	-	45.0	50.6	42.4	68.1	72.4	64.3
7/3/2016	5:39:00 PM	54.1	58.7	52.7	64.8		70.2	60.2	51.1		60.0	-	56.0	59.4	-	44.3	52.1	42.0	68.0	72.9	64.6
7/3/2016	5:40:00 PM	54.6	56.7	53.1	64.0		73.1	58.2	51.5		63.9	-	56.6	59.4	-	44.5	50.4	41.8	68.1	71.9	64.3
7/3/2016	5:41:00 PM	54.9	57.8	52.1	64.6		75.5	53.3	56.2		75.9	-	55.7	58.9	-	46.4	51.2	42.6	69.0	77.9	64.5
7/3/2016	5:42:00 PM	53.2	56.3	51.9	65.5		71.8	54.5	53.7		60.4	-	55.9	60.1	-	44.9	48.9	42.8	68.3	74.9	64.0
7/3/2016	5:43:00 PM	53.1	56.5	47.8	65.5		73.6	57.3	59.9		73.7	-	55.8	61.6	-	44.5	48.6	42.0	69.0	76.6	64.5
7/3/2016	5:44:00 PM	48.1	54.9	44.9	68.5		74.1	59.1	52.6		59.7	-	55.8	58.6	-	44.3	51.1	42.0	68.6	76.9	63.6
7/3/2016	5:45:00 PM	50.2	56.2	44.8	66.2		72.2	57.0	54.1		61.2	-	55.8	61.7	-	45.7	49.7	42.6	68.9	79.0	64.1
7/3/2016	5:46:00 PM	49.4	58.5	46.0	66.4		71.7	58.4	55.3		68.1	-	56.3	60.4	-	45.3	49.4	42.9	68.1	71.9	63.9
7/3/2016	5:47:00 PM	48.3	51.2	45.8	67.7		70.6	61.4	55.4		65.1	-	57.0	60.3	-	44.6	49.5	42.7	68.7	75.4	63.6
7/3/2016	5:48:00 PM	50.2	54.3	46.2	62.2		68.0	56.2	60.3		70.7	-	57.0	63.9	-	43.6	49.0	41.3	68.7	73.2	65.7
7/3/2016	5:49:00 PM	48.2	51.2	45.3	68.6		76.3	57.5	53.6		62.3	-	56.5	63.3	-	43.7	54.2	41.4	68.0	73.7	64.1
7/3/2016	5:50:00 PM	52.8	56.6	46.3	69.6		77.0	61.7	54.4		71.6	-	56.6	63.9	-	47.7	52.6	43.0	67.8	71.5	63.2
7/3/2016	5:51:00 PM	54.1	57.2	53.0	69.6		77.2	62.3	61.2		79.6	-	56.2	59.1	-	44.3	48.5	41.0	67.4	72.2	62.6
7/3/2016	5:52:00 PM	54.2	56.5	51.9	66.5		71.1	61.4	50.7		57.5	-	62.7	75.0	-	44.0	51.6	41.6	68.3	72.4	65.0
7/3/2016	5:53:00 PM	53.8	60.6	52.0	66.6		74.0	59.3	49.7		54.8	-	59.8	71.1	-	54.5	62.2	42.1	68.4	78.6	65.5
7/3/2016	5:54:00 PM	54.9	64.7	52.1	65.1		71.5	58.3	50.6		53.6	-	56.6	64.7	-	62.8	72.0	42.6	67.7	73.0	63.0
7/3/2016	5:55:00 PM	51.0	57.1	44.6	65.4		71.2	55.3	49.3		52.7	-	56.2	63.5	-	44.2	54.1	41.7	71.2	78.5	65.6
7/3/2016	5:56:00 PM	50.4	55.2	45.6	64.9		70.2	58.5	49.9		53.6	-	56.2	61.7	-	43.5	50.1	41.4	68.2	76.8	65.0
7/3/2016	5:57:00 PM	50.1	55.9	45.9	64.7		74.1	57.9	51.0		53.0	-	55.4	59.1	-	43.9	54.4	41.5	68.2	76.1	64.5
7/3/2016	5:58:00 PM	49.8	61.2	45.6	66.5		73.2	59.0	51.6		62.4	-	56.9	67.1	-	43.7	47.5	41.8	68.4	74.8	62.8
7/3/2016	5:59:00 PM	50.7	56.0	46.9	67.3		73.0	59.7	53.0		59.9	-	56.9	60.8	-	43.8	48.9	41.3	68.2	72.2	64.3
7/3/2016	6:00:00 PM	49.8	60.1	45.6	65.8	64.9	70.7	60.4	51.9	54.3	62.3	-	57.4	66.5	-	43.7	47.2	41.3	68.0	72.5	61.6
7/3/2016	6:01:00 PM	51.3	57.2	45.7	67.1		72.2	54.9	50.7		56.4	-	57.8	67.7	-	44.0	47.1	42.1	68.2	73.4	64.7
7/3/2016	6:02:00 PM	54.5	63.8	52.9	63.4		73.2	52.7	50.4		55.5	-	56.4	61.8	-	44.1	52.0	42.0	68.7	82.3	65.0
7/3/2016	6:03:00 PM	54.2	55.8	52.9	67.2		71.4	61.7	54.1		60.9	-	56.4	62.5	-	44.2	47.7	42.1	68.5	77.2	64.0
7/3/2016	6:04:00 PM	54.5	57.8	53.2	65.8		73.1	59.1	55.1		69.7	-	55.2	59.3	-	44.2	49.2	41.8	68.8	84.3	63.3
7/3/2016	6:05:00 PM	54.3	57.5	52.4	67.6		72.8	61.3	53.4		57.9	-	56.2	60.9	-	44.0	47.2	41.6	68.4	79.5	63.5
7/3/2016	6:06:00 PM	53.1	56.8	46.9	66.6		73.4	55.1	53.1		58.5	-	55.9	62.0	-	44.0	47.8	42.1	67.5	75.8	63.2
7/3/2016	6:07:00 PM	54.1	71.3	44.5	68.0		73.0	55.1	52.3		62.7	-	56.9	63.5	-	43.7	48.6	41.6	67.2	72.8	62.5
7/3/2016	6:08:00 PM	55.6	68.6	44.9	68.3		73.1	55.3	52.1		57.7	-	56.6	61.4	-	43.3	47.1	41.3	69.0	82.8	63.0
7/3/2016	6:09:00 PM	48.7	54.6	45.6	68.3		72.4	62.6	53.9		61.9	-	55.2	57.7	-	43.1	46.9	40.6	67.9	73.4	62.8
7/3/2016	6:10:00 PM	50.2	54.1	45.8	65.8		73.9	57.8	59.3		74.8	-	55.5	58.1	-	44.0	47.7	41.7	68.5	77.1	65.2
7/3/2016	6:11:00 PM	50.4	55.5	45.0	65.7		72.1	60.3	52.2		64.9	-	54.7	58.0	-	43.8	51.0	41.2	68.2	75.0	64.6
7/3/2016	6:12:00 PM	49.6	54.9	45.6	65.7		71.4	59.0	52.7		60.0	-	56.5	61.6	-	45.3	57.1	41.6	69.4	75.9	65.7
7/3/2016	6:13:00 PM	53.1	57.5	45.8	65.5		71.7	57.3	50.6		59.6	-	56.3	58.5	-	43.3	49.4	40.8	68.4	72.3	64.7
7/3/2016	6:14:00 PM	54.0	56.7	52.7	63.2		72.7	52.0	50.8		55.8	-	56.2	61.8	-	44.9	53.3	41.5	67.7	71.9	63.6
7/3/2016	6:15:00 PM	55.1	60.7	53.4	63.3		70.1	55.8	53.1		63.1	-	55.0	57.7	-	45.3	53.9	42.1	68.5	77.5	62.8
7/3/2016	6:16:00 PM	54.5	60.1	52.8	65.0		69.3	59.6	53.6		61.4	-	55.4	58.7	-	44.5	50.8	42.6	68.7	79.1	65.0
7/3/2016	6:17:00 PM	55.7	68.2	53.6	64.8		68.1	58.4	53.8		59.4	-	57.2	65.9	-	43.7	48.8	41.6	69.1	77.1	62.8
7/3/2016	6:18:00 PM	51.9	63.3	45.7	66.7		71.5	59.9	53.0		60.6	-	56.0	63.5	-	45.1	52.3	41.4	68.2	73.5	64.4
7/3/2016	6:19:00 PM	49.5	55.1	45.6	64.9		69.9	58.4	55.0		63.0	-	56.5	61.0	-	44.1	49.9	42.0	69.6	80.5	64.3
7/3/2016	6:20:00 PM	48.9	54.8	44.2	63.3		70.9	55.2	51.5		55.5	-	56.1	59.4	-	44.3	47.3	41.5	69.0	75.0	64.2
7/3/2016	6:21:00 PM	50.3	66.0	45.2	64.4		71.6	57.3	53.3		60.0	-	56.1	61.2	-	43.9	46.2	41.8	68.2	78.4	63.7
7/3/2016	6:22:00 PM	51.9	58.5	44.7	66.9		73.1	59.1	54.4		61.4	-	56.5	62.0	-	43.8	56.6	41.8	68.0	76.3	63.2
7/3/2016	6:23:00 PM	47.3	53.4	43.4	66.1		71.9	57.8	51.9		57.5	-	56.6	59.2	-	43.7	46.9	42.1	68.7	78.4	64.5
7/3/2016	6:24:00 PM	51.6	58.1	45.0	66.1		70.6	58.8	57.0		72.5	-	56.3	60.2	-	44.6	57.5	41.3	68.5	77.5	62.7
7/3/2016	6:25:00 PM	54.0	64.1	51.7	66.8		71.4	60.5	56.2		61.7	-	55.2	58.5	-	45.4	53.7	41.4	68.0	78.6	64.7
7/3/2016	6:26:00 PM	54.7	58.4	52.5	66.3		71.2	60.0	52.4		57.6	-	56.7	64.3	-	43.1	47.3	41.5	68.2	72.3	63.9
7/3/2016	6:27:00 PM	54.4	55.8	53.0	65.0		71.1	56.5	52.6		63.8	-	55.9	61.0	-	44.1	52.3	41.1	68.4	80.5	63.2
7/3/2016	6:28:00 PM	54.1	55.9	52.9	65.7		70.3	59.6	57.5		70.1	-	56.0	58.9	-	45.0	56.6	41.8	68.8	76.1	64.6
7/3/2016	6:29:00 PM	53.3	56.5	46.0	64.5		69.6	55.4	51.9		62.2	-	57.1	65.9	-	45.7	57.9	41.6	67.4	76.8	62.2
7/3/2016	6:30:00 PM	51.1	62.5	44.6	66.8		71.2	58.0	53.4		64.0	-	56.0	59.8	-	46.0	57.7	43.0	69.3	75.3	64.2
7/3/2016	6:31:00 PM	50.5	58.9	44.4	67.6		75.7	60.0	49.6		52.7	-	55.7	61.1	-	43.8	46.0	41.6	68.1	76.3	63.3
7/3/2016	6:32:00 PM	47.8	55.2	43.8	64.3		70.1	56.3	52.3		59.0	-	55.5	58.7	-	43.6	49.7	41.3	68.3	73.7	63.6
7/3/2016	6:33:00 PM	47.2	52.2	44.2	61.6		66.8	54.8	56.4		64.4	-	56.5	60.3	-	44.1	52.8	41.9	68.2	77.0	62.9
7/3/2016	6:34:00 PM	50.6	65.0	43.9	65.3		71.2	57.5	51.9		61.7	-	57.7	66.6	-	44.0	49.3	41.7	68.3	74.1	64.4
7/3/2016	6:35:00 PM	50.5	63.1	44.1	66.0		72.2	55.9	56.2		65.3	-	55.6	60.5	-	51.2	59.0	42.3	67.8	72.8	62.6
7/3/2016	6:36:00 PM	53.8	68.6	44.4	65.6		72.0	54.3	52.6		55.6	-	60.0	79.2	-	45.9	52.4	42.3	67.9	72.3	63.1
7/3/2016	6:37:00 PM	54.7	60.5	52.7	61.5		68.0	52.9	61.9		78.8	-	56.8	71.1	-	44.5	48.9	42.0	68.6	74.7	63.4
7/3/2016	6:38:00 PM	54.6	56.5	53.1	62.7		68.0	54.1	51.4		56.8	-	56.6	60.6	-	44.1	47.9	41.7	68.8	74.6	65.2
7/3/2016	6:39:00 PM	54.5	58.7	52.7	65.4		74.1	55.2	51.7		58.2	-	56.6	60.1	-	44.8	52.3	42.0	68.3	73.0	63.6
7/3/2016	6:40:00 PM	54.6	69.1	52.3	64.2		69.7	59.0	53.1		61.2	-	56.5	60.5	-	46.2	63.6	43.0	68.3	74.0	62.4
7/3/2016	6:41:00 PM	53.3	58.4	47.8	59.5		65.7	52.2	51.1		55.3	-	56.6	60.8	-	47.1	64.7	42.3	67.7	71.3	62.5
7/3/2016	6:42:00 PM	48.1	52.7	45.4	61.9		65.9	53.9	51.1		54.7	-	58.1	70.9	-	46.6	51.0	43.1	68.0	73.0	64.4
7/3/2016	6:43:00 PM	48.1	56.0	42.8	61.4		66.2	54.5	55.0		61.1	-	55.8	60.4	-	44.8	52.1	42.8	68.8	73.8	64.4
7/3/2016	6:44:00 PM	48.0	52.9	44.1	63.9		70.7	56.5	52.9		59.2	-	56.4	70.0	-	44.6	47.3	42.7	67.7	73.6	61.4
7/3/2016	6:45:00 PM	48.0	53.3	43.9	64.0		71.8	53.8	51.7		55.1	-	55.9	59.7	-	46.2	50.6	42.7	67.4	72.7	63.1
7/3/2016	6:46:00 PM	45.1	54.0	42.7	61.6		67.6	53.7	53.0		59.7	-	56.4	58.8	-	44.5	51.6	42.0	67.9	73.6	62.0
7/3/2016	6:47:00 PM	51.8	59.1	44.6	64.5		70.3	54.2	53.3		62.2	-	57.1	60.9	-	43.4	46.5	41.3	66.6	70.9	62.7
7/3/2016	6:48:00 PM	53.4	56.9	52.2	64

7/3/2016	7:05:00 PM	50.1	55.0	46.5	57.3		63.5	52.1	57.9		75.9	-	56.5	61.4	-	44.7	48.3	42.3	68.5	76.2	62.9
7/3/2016	7:06:00 PM	49.8	65.5	46.4	60.2		69.6	51.3	54.9		61.2	-	57.0	60.8	-	44.5	50.5	42.4	67.6	72.6	62.6
7/3/2016	7:07:00 PM	52.0	56.9	47.8	57.1		61.5	52.7	53.9		61.0	-	58.3	66.4	-	44.2	46.5	42.1	68.5	73.2	62.8
7/3/2016	7:08:00 PM	52.3	56.3	48.9	58.5		66.6	53.0	49.5		51.9	-	56.6	59.5	-	43.9	46.6	41.7	67.2	73.4	60.7
7/3/2016	7:09:00 PM	50.1	53.7	45.1	58.1		63.7	50.6	50.8		59.1	-	56.6	60.2	-	44.0	47.0	42.2	67.1	71.4	61.7
7/3/2016	7:10:00 PM	53.4	57.6	46.6	54.9		63.2	50.4	54.7		61.6	-	56.5	63.6	-	44.4	46.8	42.3	67.5	72.0	62.1
7/3/2016	7:11:00 PM	53.8	55.4	52.5	54.9		62.1	50.3	55.0		72.4	-	56.4	59.7	-	44.7	47.7	42.6	68.3	72.2	63.8
7/3/2016	7:12:00 PM	54.2	58.1	52.4	58.9		67.6	51.2	54.4		72.2	-	57.2	63.0	-	46.7	51.0	43.2	68.8	74.8	62.7
7/3/2016	7:13:00 PM	54.2	62.2	52.0	57.7		66.2	50.4	51.5		56.7	-	56.7	60.8	-	45.1	48.9	42.6	69.1	75.0	62.2
7/3/2016	7:14:00 PM	54.0	56.3	51.9	57.0		66.3	49.2	55.9		66.1	-	56.5	60.4	-	45.0	54.2	42.9	68.3	73.0	62.9
7/3/2016	7:15:00 PM	47.6	56.5	43.9	62.2		71.8	49.0	53.7		58.6	-	56.8	59.9	-	44.7	48.3	42.6	68.7	73.3	64.4
7/3/2016	7:16:00 PM	61.6	75.9	43.7	53.4		58.9	49.9	55.5		69.6	-	56.8	60.1	-	44.5	48.1	42.2	68.3	78.2	63.2
7/3/2016	7:17:00 PM	59.0	75.5	45.4	55.0		58.7	49.4	52.5		57.6	-	56.9	59.8	-	46.0	50.5	42.7	69.2	76.0	63.6
7/3/2016	7:18:00 PM	50.5	74.4	44.6	50.5		55.0	48.6	51.9		55.9	-	57.0	62.1	-	46.6	50.5	43.3	67.6	74.8	61.3
7/3/2016	7:19:00 PM	49.2	57.9	44.3	60.7		72.0	48.3	53.0		57.9	-	56.7	61.6	-	45.3	49.1	42.7	67.5	75.2	61.8
7/3/2016	7:20:00 PM	49.9	54.1	45.8	55.2		64.1	51.4	51.9		63.7	-	56.7	64.8	-	45.1	51.0	42.7	68.4	78.0	61.5
7/3/2016	7:21:00 PM	55.0	59.8	49.2	59.3		69.2	49.0	53.0		57.1	-	57.1	68.1	-	45.6	48.8	43.4	67.6	73.7	60.6
7/3/2016	7:22:00 PM	55.0	58.3	52.9	55.3		65.5	50.0	52.7		56.9	-	57.6	63.2	-	45.1	48.3	42.6	67.8	74.0	61.5
7/3/2016	7:23:00 PM	55.4	61.6	53.7	60.5		69.4	50.7	53.5		58.7	-	58.8	63.8	-	45.1	48.5	42.7	68.1	72.2	63.6
7/3/2016	7:24:00 PM	54.9	59.1	53.5	61.3		66.0	51.1	51.4		54.8	-	59.0	67.9	-	45.1	48.6	42.8	67.0	72.2	62.4
7/3/2016	7:25:00 PM	54.4	57.6	53.1	59.5		64.2	53.8	51.9		62.7	-	56.5	62.4	-	46.4	49.5	43.1	66.0	70.1	60.8
7/3/2016	7:26:00 PM	50.4	56.4	44.8	60.2		64.8	53.4	54.8		61.1	-	56.7	68.1	-	45.5	49.6	43.1	67.2	72.0	61.8
7/3/2016	7:27:00 PM	50.8	58.8	45.2	57.2		68.1	50.0	57.0		63.2	-	57.2	64.1	-	45.1	47.5	42.7	68.3	74.6	63.1
7/3/2016	7:28:00 PM	47.9	57.9	43.4	54.7		58.0	51.7	52.6		57.2	-	56.9	61.8	-	45.5	48.5	43.2	67.5	74.3	58.9
7/3/2016	7:29:00 PM	48.1	54.3	43.2	52.7		58.1	49.0	51.9		57.0	-	56.4	62.1	-	45.3	49.0	43.3	67.2	73.9	61.6
7/3/2016	7:30:00 PM	46.8	52.9	41.6	60.0		70.0	48.0	52.6		57.6	-	55.6	61.2	-	45.4	50.3	42.9	68.5	73.2	63.1
7/3/2016	7:31:00 PM	45.1	53.2	41.4	55.5		67.2	49.7	54.4		59.1	-	56.8	61.2	-	45.3	49.8	43.0	67.3	71.4	60.9
7/3/2016	7:32:00 PM	49.6	57.8	42.3	51.6		58.8	48.6	54.9		62.1	-	58.2	68.0	-	45.9	51.2	42.9	68.1	73.7	61.9
7/3/2016	7:33:00 PM	53.5	58.5	52.4	52.7		63.2	47.7	52.6		58.7	-	57.1	62.7	-	45.2	48.7	42.8	67.1	74.5	61.5
7/3/2016	7:34:00 PM	53.9	58.8	52.3	49.1		51.8	47.3	53.6		58.8	-	57.8	67.7	-	45.2	48.0	43.0	67.4	75.3	60.6
7/3/2016	7:35:00 PM	55.0	63.5	53.2	48.7		50.9	47.0	52.7		58.1	-	57.0	60.0	-	45.4	48.3	43.5	68.3	73.5	61.8
7/3/2016	7:36:00 PM	55.5	61.2	53.4	49.0		52.0	47.3	53.0		58.6	-	55.9	60.3	-	45.5	47.9	43.6	68.2	73.9	64.2
7/3/2016	7:37:00 PM	54.0	64.5	44.9	50.3		54.9	48.0	53.2		58.1	-	56.6	64.0	-	45.7	50.4	43.8	68.5	74.7	62.7
7/3/2016	7:38:00 PM	58.0	78.4	43.8	59.2		71.4	48.5	51.1		56.8	-	56.5	61.3	-	46.0	48.6	43.6	69.4	83.5	61.5
7/3/2016	7:39:00 PM	51.4	67.4	44.2	59.7		70.3	53.4	50.3		55.3	-	57.9	66.7	-	45.7	58.2	43.5	68.4	78.9	62.1
7/3/2016	7:40:00 PM	57.0	76.7	43.7	57.9		62.9	54.0	51.7		59.3	-	57.6	63.4	-	45.5	49.2	43.3	68.1	72.8	63.8
7/3/2016	7:41:00 PM	47.6	54.3	43.4	60.4		72.7	50.8	51.8		56.9	-	55.9	60.5	-	46.3	52.7	43.4	69.0	79.9	62.4
7/3/2016	7:42:00 PM	48.1	61.4	42.3	50.5		57.6	48.6	53.0		62.2	-	56.5	59.3	-	46.2	50.4	43.6	68.2	79.0	60.3
7/3/2016	7:43:00 PM	49.2	58.4	42.6	52.0		63.0	47.9	55.4		62.0	-	55.9	60.4	-	46.3	49.8	43.8	68.3	74.6	61.7
7/3/2016	7:44:00 PM	54.2	59.3	45.5	50.8		59.0	48.4	51.9		59.2	-	64.0	72.0	-	47.1	52.0	43.8	68.5	75.6	63.4
7/3/2016	7:45:00 PM	54.3	61.6	52.1	59.9		68.1	49.1	51.7		58.8	-	57.9	60.9	-	48.1	53.0	44.8	68.7	75.7	62.5
7/3/2016	7:46:00 PM	54.3	55.9	53.1	59.0		65.6	51.6	50.6		54.7	-	56.6	60.2	-	46.2	49.0	43.3	68.5	73.3	62.6
7/3/2016	7:47:00 PM	55.6	61.3	52.8	57.9		66.1	50.6	50.4		53.8	-	58.2	64.0	-	45.9	49.3	43.7	67.9	74.1	61.1
7/3/2016	7:48:00 PM	53.2	57.7	45.3	58.6		68.3	50.4	51.4		55.4	-	56.2	61.8	-	45.6	48.9	43.3	67.7	72.4	60.8
7/3/2016	7:49:00 PM	47.8	56.3	43.7	60.8		70.7	51.1	50.5		56.5	-	56.8	62.5	-	45.6	48.2	43.7	67.5	73.8	61.5
7/3/2016	7:50:00 PM	50.8	66.1	43.1	58.7		69.1	49.7	52.3		58.1	-	57.3	66.9	-	45.8	49.0	43.1	67.9	73.3	62.9
7/3/2016	7:51:00 PM	50.0	58.9	45.2	50.2		53.4	47.7	51.5		55.4	-	57.0	60.8	-	45.7	52.6	43.4	67.2	71.9	62.2
7/3/2016	7:52:00 PM	46.8	53.1	42.9	49.0		51.1	46.8	55.6		63.6	-	57.7	62.2	-	45.6	48.8	43.3	68.4	72.9	62.7
7/3/2016	7:53:00 PM	45.7	53.0	41.8	47.9		50.1	46.2	53.2		58.4	-	57.9	62.1	-	45.7	48.3	43.9	68.7	76.6	63.9
7/3/2016	7:54:00 PM	47.3	52.7	42.9	49.2		59.6	45.9	51.6		55.5	-	56.9	61.9	-	46.3	49.6	44.0	68.2	75.8	59.4
7/3/2016	7:55:00 PM	47.6	57.4	43.2	48.1		50.5	45.8	51.9		57.9	-	57.1	63.6	-	46.5	53.2	43.5	69.6	74.3	63.0
7/3/2016	7:56:00 PM	54.2	58.3	52.7	48.5		50.6	46.7	51.3		61.7	-	58.2	61.7	-	45.1	48.2	43.1	67.8	72.9	62.7
7/3/2016	7:57:00 PM	53.5	55.5	52.3	52.9		64.5	46.4	51.7		55.6	-	60.2	70.2	-	44.9	47.6	42.4	68.6	75.9	62.9
7/3/2016	7:58:00 PM	54.3	56.5	52.4	49.3		51.2	47.5	50.8		56.3	-	58.0	62.0	-	45.3	48.7	43.0	67.1	72.8	59.2
7/3/2016	7:59:00 PM	55.7	60.7	53.6	50.7		61.8	47.9	51.1		55.4	-	57.1	61.2	-	45.6	48.6	43.0	68.0	74.0	62.2
7/3/2016	8:00:00 PM	51.5	58.3	44.7	55.6	55.2	64.6	49.0	51.8	57.7	58.3	-	56.7	58.9	-	45.6	58.2	43.5	67.3	76.0	59.2
7/3/2016	8:01:00 PM	50.9	57.7	44.8	54.1		65.4	48.9	52.9		68.1	-	56.7	60.1	-	45.7	49.1	43.1	67.3	72.7	61.7
7/3/2016	8:02:00 PM	48.9	53.9	44.2	58.9		67.6	49.3	53.5		61.5	-	58.1	64.2	-	45.3	47.9	43.0	67.9	73.7	61.6
7/3/2016	8:03:00 PM	48.0	59.6	42.4	54.6		65.6	50.1	54.3		60.9	-	56.4	65.9	-	45.0	48.1	42.7	67.7	73.3	60.6
7/3/2016	8:04:00 PM	50.5	57.6	43.3	60.0		69.7	49.5	57.2		65.1	-	56.1	59.9	-	45.0	48.0	43.0	67.8	74.2	59.8
7/3/2016	8:05:00 PM	58.8	68.8	44.7	58.8		67.3	51.5	57.3		63.0	-	56.5	61.2	-	45.2	48.2	42.9	68.1	72.4	61.6
7/3/2016	8:06:00 PM	64.5	72.8	46.2	55.3		61.6	50.7	57.3		63.3	-	56.6	60.3	-	44.8	48.3	42.7	67.6	74.8	60.2
7/3/2016	8:07:00 PM	51.4	58.5	41.6	62.9		73.2	51.8	56.4		63.3	-	58.8	63.3	-	45.0	47.8	43.2	67.4	76.7	59.7
7/3/2016	8:08:00 PM	53.3	58.3	41.9	55.7		60.1	52.2	58.5		66.6	-	56.6	61.1	-	44.8	48.7	42.9	69.1	75.3	62.1
7/3/2016	8:09:00 PM	53.6	55.5	52.0	53.3		58.9	49.5	59.1		64.1	-	56.5	59.5	-	44.6	49.1	42.1	68.0	75.6	59.2
7/3/2016	8:10:00 PM	53.8	54.9	52.8	53.3		58.6	49.3	59.5		64.4	-	56.0	61.1	-	45.0	51.1	42.4	68.1	79.1	58.6
7/3/2016	8:11:00 PM	53.7	54.9	52.7	50.9		56.5	48.6	55.1		61.7	-	56.4	60.2	-	44.9	48.9	42.6	66.8	73.7	60.0
7/3/2016	8:12:00 PM	52.3	56.5	44.2	53.2		65.3	48.6	58.0		65.6	-	57.3	62.6	-	45.2	49.5	42.4	67.6	72.3	62.9
7/3/2016	8:13:00 PM	45.6	49.6	42.8	55.2		61.7	49.8	57.0		64.2	-	57.0	59.7	-	45.1	48.9	42.7	67.8	74.6	62.5
7/3/2016	8:14:00 PM	51.5	66.5	43.2	53.1		64.5	50.0	57.8		65.0	-	57.0	62.4	-	44.5	47.1	42.2	67.5	72.7	60.6
7/3/2016	8:15:00 PM	53.4	67.9	43.0	56.9		66.8	48.9	52.4		60.0	-	56.3	59.0	-	44.3	47.9	42.1	67.7	71.9	62.4
7/3/2016	8:16:00 PM	50.1	58.4	42.6	57.0		66.5	50.1	59.0		65.3	-	57.2	60.4	-	44.8	48.1	42.7	67.1	72.7	59.7
7/3/2016	8:17:00 PM	52.6	64.3	41.8	54.8		62.1	50.7	59.8		65.7	-	58.2	68.1	-	44.4	47.7	41.6	68.2	72.9	62.2
7/3/2016	8:18:00 PM	47.5	55.0	43.9	52.7		59.6	49.4	57.8		66.1	-	56.7	60.9	-	44.5	47.0	42.6	67.4	73.3	61.6
7/3/2016	8:19:00 PM	48.3	52.8	43.2	53.6		60.7	49.6	54.7		63.1	-	55.4	59.6	-	44.5	47.1	42.4	66.2	73.1	60.0
7/3/2016	8:20:00 PM	49.5	57.8	43.1	51.2		58.3	48.6	59.6		65.3	-	55.2	58.2	-	44.6	46.7	42.3	66.9	73.1	58.8
7/3/2016	8:21:00 PM	53.9	58.4	50.4	52.2		55.6	48.8	59.3		65.9	-	56.0	60.2	-	45.2	50.4	42.2	68.7	76.5	60.1
7/3/2016	8:22:00 PM	54.0	59.6	52.3	55.0		63.3	50.1	59.3		65.2	-	57.8	62.2	-	45.7	51.3	41.8	67.0	73.1	57.3
7/3/2016	8:23:00 PM	55.3	65.5	53.0	54.7		61.8	50.6	59.0		65.8	-	57.7	60.9	-	43.9	47.7	41.9	67.4	73.8	58.7
7/3/2016	8:24:00 PM	54.8	58.4	53.2	56.1		61.5	51.4	58.8		65.0	-	56.6	59.6	-	44.0	47.2	42.0	65.7	71.1	58.9
7/3/2016	8:25:00 PM	50.5	57.9	43.2	58.0		62.6	52.6	55.3		66.9	-	56.3	58.7	-	43.8	46.0	42.0	69.0	74.1	61.3
7/3/2016	8:26:00 PM	47.9	59.7	42.7	54.0		59.0	51.1	59.7		64.6	-	55.0	58.1	-	44.3	47.6	42.0	67.6	73.6	60.5
7/3/2016	8:27:00 PM	50.6	60.4	43.7	54.0		59.8	50.1	60.4		68.1	-	56.4	63.5	-	44.9	49.5	42.8	67.7	74.3	59.4
7/3/2016	8:28:00 PM	46.6	55.7	40.5	55.7		60.3	52.5	54.4		65.3	-	56.0	60.1	-	45.1	47.9	42.8	67.9	73.8	62.1
7/3/2016	8:29:00 PM	49.8	56.2	41.9	59.5		68.0	51.9	56.8		63.9	-	57.1	63.2	-	44.1	47.9	41.7	67.8	72.7	59.1
7/3/2016	8:30:00 PM	61.2	76.3	42.8	53.3		59.7	47.7	59.1		69.1	-	57.2	61.5	-	43.9	46.2	41.7	67.7	73.3	57.8
7/3/2016	8:31:00 PM	49.7	56.7	43.1	50.9		53.4	48.0	60.2		68.0	-	56.4	59.2	-	43.8	46.8	41.4	66.3	72.4	58.8
7/3/2016	8:32:00 PM	50.3	59.4	40.7	50.5		54.1	48.4	58.2		65.3	-	56.8	60.8	-	44.0	46.5	42.2	66.5	73.4	58.8
7/3/2016	8:33:00 PM	49.7	57.1	43.0	49.9		51.9	48.3	59.9		66.4	-	57.7	64.8	-	44.5	47.3	42.2	66.8	71.6	60.5
7/3/2016	8:34:00 PM	53.9	58.0	44.8	50.1		52.9	48.3	53.1		63.6	-	56.9	62.8	-	45.1	47.9	42.0	68.4	74.8	61.7
7/3/2016	8:35:00 PM	53.5	55.8	52.0	49.9		62.8	47.9	52.2		61.8	-	58.0	64.6	-	44.4	46.9	42.0	68.2	74.8	59.9
7/3/2016	8:36:00 PM	54.2	56.0	52.9	49.3		54.0	47.5	58.0		62.8	-	56.8	62.3	-	44.8	48.4	42.1	67.8	75.2	57.0
7/3/2016	8:37:00 PM	54.3	58.9	50.6	49.5		51.9	47.0	58.2		66.4	-	56.4	59.4	-	44.5	55.5	42.1	68.2	74.1	60.2
7/3/2016	8:38:00 PM	50.0	56.7	43.1	48.1		55.4	46.3	59.0		64.4	-	57.4	62.0	-	44.1	46.5	41.4	68.0	74.9	62.0
7/3/2016	8:39:00 PM	45.5	53.3	40.4	47.9		51.2	46.2	58.4		65.2	-	56.8	64.0	-	44.3	49.7	41.4	66.1	70.7	60.2
7/3/2016	8:40:00 PM	49.9	60.1	42.3	48.5		54.3	46.4	58.2		64.9	-	58.7	69.8	-	44.2	48.2	41.1	66.7	71.3	58.6
7/3/2016	8:41:00 PM	45.8	55.5	41.7	50.1		52.5	46.8	55.7		65.6	-	57.1	68.0	-	44.4	47.7	41.9	67.1	72.3	57.4
7/3/2016	8:42:00 PM	46.2	55.3	41.1	52.1		56.8	48.9	52.5		62.9	-	58.2	70.5	-	44.3	48.9	41.8	66.4	72.1	59.7
7/3/2016	8:43:00 PM	49.6	54.1	43.3	51.2		56.7	48.5	58.4		64.7	-	57.1	63.5	-	43.9	47.2	41.5	67.0	71.6	59.2
7/3/2016	8:44:00 PM	50.3	57.5	42.8	54.9		65.4	47.5	57.7		64.4	-	63.0	74.4	-	49.2	57.0	42.4	66.3	71.4	58.6
7/3/2016	8:45:00 PM	48.3	53.8	41.8	49.4		53.3	48.1	56.9		65.2	-	56.3	59.1	-	55.4	64.7	43.1	66.1	71.0	59.7
7/3/2016	8:46:00 PM	47.9	57.9	41.2	52.3		60.5	48.4	53.0		61.4	-	56.0	58.5	-	43.9	48.8	41.4	67.9	73.7	58.1
7/3/2016	8:47:00 PM	53.5	57.2	52.5	49.9		52.1	47.8	62.3		82.6	-	55.9	58.7	-	44.8	51.4	41.7	66.8	72.5	59.4
7/3/2016	8:48:00 PM	53.6	56.3	52.3	64.0		74.4	46.5	58.5		65.0	-	57.1	61.9	-	45.4	53.4	42.6	67.6	74.5	59.6
7/3/2016	8:49:00 PM	53.7	54.7	52.6	52.0		58.9	47.3	58.3		68.1	-	55.8	60.4	-	45.9	51.2	43.3	67.6	72.4	59.5
7/3/2016	8:50:00 PM	54.7	59.0	44.3	49.4		52.6	47.1	52.8		72.1	-	56.3	59.4	-	44.9	48.1	42.3	67.3	74.0	57.8
7/3/2016	8:51:00 PM	44.8	53.9	41.3	49.5		56.3	47.5	51.9		60.6	-	55.1	57.8	-	44.8	54.1	42.2	67.7	74.5	60.8
7/3/2016	8:52:00 PM	44.5	56.8	42.0	50.3		53.4	48.2	58.6		64.4	-	54.6	61.0	-	44.0	48.4	42.0	66.9	74.7	58.7
7/3/2016	8:53:00 PM	44.5	50.3	40.7	54.5		60.4	50.6	58.2		64.5	-	55.7	58.7	-	45.0	49.3	42.6	68.9	78.1	62.6
7/3/2016	8:54:00 PM	43.2	47.6	40.6	52.1		55.4	49.7	57.7		62.8	-	56.9	62.0	-	45.7	49.5	43.5	67.7	73.3	61.7
7/3/2016	8:55:00 PM	46.1	58.9	41.4	51.8		56.1	49.3	57.7		62.7	-	57.4	61.5	-	46.0	55.4	43.3	67.9	73.8	60.7
7/3/2016	8:56:00 PM	44.8	49.8	41.5	51.4		56.4	48.9	58.0		62.3	-	55.8	66.7	-	47.0	56.3	42.8	68.1	78.6	61.0
7/3/2016	8:57:00 PM	45.8	49.8	42.1	59.5		68.4	48.9	57.0		65.6	-	58.1	69.6	-	46.2	51.9	43.4	67.1	72.3	59.8
7/3/2016	8:58:00 PM	46.1	49.7	42.3	52.7		58.5	48.4	57.2		65.6	-	55.3	66.6	-	45.3	51.7	42.3	66.7	71.7	58.6
7/3/2016	8:59:00 PM	47.2	51.8	41.9	49.4		53.5	46.8	51.8		59.4	-	55.5	64.1	-	44.0	47.6	41.1	67.6	71.8	62.0
7/3/2016	9:00:00 PM	53.6	58.2	43.5	48.1	56.1	51.5	46.1	51.5	59.6	58.1	-	56.8	65.3	-	43.8	52.0	41.2	67.8	73.7	60.3
7/3/2016	9:01:00 PM	54.5	59.2	52.1	49.9		53.2	47.0	51.3		53.8	-	57.5	68.3	-	43.4	48.1	41.5	67.7	73.1	58.9
7/3/2016	9:02:00 PM	54.2	60.2	52.3	53.6		61.8	48.4	50.9		54.1	-	55.5	61.9	-	43.9	47.2	41.0	68.6	75.1	59.5
7/3/2016	9:03:00 PM	54.6	56.7	53.0	52.9		58.8	47.2	50.9		55.2	-	56.4	65.4	-	44.8	48.2	42.3	68.1	77.0	62.5
7/3/2016	9:04:00 PM	46.2	54.7	41.1	51.9		56.1	48.7	52.0		59.7	-	54.6	58.1	-	45.1	53.4	42.4	69.5	80.5	62.2
7/3/2016	9:05:00 PM	44.4	51.0	40.1	54.4		64.6	48.3	52.7		57.6	-	54.0	56.9	-	44.7	56.1	42.4	68.8	76.4	59.7
7/3/2016	9:06:00 PM	42.3	45.1	40.1	54.2		64.8	48.9	52.6		63.8	-	57.1	69.2	-	45.0	50.4	41.7	67.9	73.3	61.6
7/3/2016	9:07:00 PM	46.2	51.4	41.0	52.7		55.8	49.2	50.6		62.1	-	54.5	57.7	-	44.4	53.4	41.1	67.0	72.0	59.2
7/3/2016	9:08:00 PM	45.8	53.0	41.4	54.1		62.4	46.6	50.8		58.7	-	57.0	63.6	-	44.4	48.1	41.6	65.7	71.8	60.7
7/3/2016	9:09:00 PM	44.7	48.8	40.9	60.0		68.9	46.9	55.2		61.2	-	55.9	59.1	-	44.2	46.8	41.8	68.9	75.6	61.2
7/3/2016	9:10:00 PM	44.5	51.2	41.2	54.1		63.7	46.8	58.0		65.4	-	56.9	68.4	-	43.9	47.8	41.4	67.8	78.1	59.8
7/3/2016	9:11:00 PM	45.1	50.8	41.4	48.2		50.5	45.9	60.1		64.7	-	55.5	60.2	-	44.9	56.2	41.8	67.8	74.6	62.0
7/3/2016	9:12:00 PM	44.3	48.9	40.1	49.8		56.5	46.6	59.1		66.1	-	56.4	60.9	-	45.1	60.5	41.7	67.7	76.8	60.7
7/3/2016	9:13:00 PM	50.9	58.7	39.1	53.1		64.1	45.9	58.3		65.4	-	56.5	67.5	-	44.0	47.9	41.3	67.8	73.5	61.5
7/3/2016	9:14:00 PM	53.6	56.1	52.4	48.1

7/3/2016	9:31:00 PM	49.5	69.6	42.1	54.2		66.6	48.1	60.6		68.4	-	55.6	71.0	-	44.0	51.7	41.3	67.8	75.7	55.8
7/3/2016	9:32:00 PM	43.9	48.6	40.9	51.5		55.3	49.2	60.4		66.1	-	54.3	59.1	-	44.3	49.4	41.7	67.2	72.5	59.9
7/3/2016	9:33:00 PM	43.6	49.5	40.0	52.3		55.6	49.6	60.4		65.5	-	54.6	57.9	-	44.2	46.9	41.8	67.7	72.6	61.1
7/3/2016	9:34:00 PM	43.3	51.9	39.2	49.0		53.7	46.5	60.2		64.7	-	57.9	68.9	-	44.2	48.6	41.7	67.0	73.1	59.5
7/3/2016	9:35:00 PM	42.1	47.7	38.6	48.5		53.2	46.5	61.5		65.1	-	55.0	58.8	-	43.4	46.8	40.7	67.3	73.1	61.1
7/3/2016	9:36:00 PM	43.8	49.3	40.2	54.7		64.8	48.5	62.3		66.8	-	55.7	64.4	-	44.0	49.2	41.3	67.8	74.1	60.9
7/3/2016	9:37:00 PM	43.3	49.5	39.7	59.2		69.1	49.2	57.8		65.2	-	57.4	65.8	-	44.2	48.3	41.7	66.3	74.2	59.1
7/3/2016	9:38:00 PM	41.3	43.9	39.1	56.1		66.3	48.8	54.4		64.5	-	55.5	58.7	-	44.0	48.6	41.8	67.8	73.3	59.8
7/3/2016	9:39:00 PM	44.9	52.8	41.1	63.1		75.7	47.5	59.4		67.8	-	54.7	59.3	-	44.0	48.2	41.3	65.6	72.4	58.7
7/3/2016	9:40:00 PM	52.8	57.7	39.8	67.0		77.3	51.0	61.9		76.7	-	55.0	59.4	-	44.3	53.8	41.2	65.9	71.7	57.3
7/3/2016	9:41:00 PM	55.3	61.8	53.1	52.1		67.7	45.4	58.5		71.1	-	55.7	61.6	-	44.7	48.1	41.6	67.2	74.0	58.9
7/3/2016	9:42:00 PM	55.4	60.7	53.2	48.7		59.6	45.4	62.5		78.6	-	55.6	60.6	-	44.7	47.6	42.2	67.4	73.5	60.0
7/3/2016	9:43:00 PM	54.2	57.5	52.9	51.4		64.4	46.7	61.3		65.8	-	55.5	61.3	-	44.6	47.2	41.8	67.0	73.6	58.9
7/3/2016	9:44:00 PM	49.9	64.3	40.7	48.3		49.9	46.6	60.2		65.7	-	55.3	59.8	-	44.0	48.1	41.9	66.6	72.7	59.7
7/3/2016	9:45:00 PM	46.3	69.2	40.6	48.6		51.1	46.7	61.9		67.7	-	57.4	75.9	-	47.4	54.8	42.1	66.5	72.9	59.6
7/3/2016	9:46:00 PM	41.0	43.9	38.6	49.6		52.9	46.6	62.1		69.6	-	56.0	60.0	-	49.1	55.2	42.6	65.7	72.0	57.7
7/3/2016	9:47:00 PM	46.5	57.7	39.4	53.4		60.0	48.7	62.3		67.5	-	56.7	64.0	-	44.2	47.5	41.6	66.9	71.9	60.2
7/3/2016	9:48:00 PM	44.4	52.6	39.1	56.7		67.5	46.8	60.9		68.6	-	56.0	60.4	-	43.8	47.3	41.2	67.6	74.0	60.0
7/3/2016	9:49:00 PM	43.4	57.7	39.0	65.4		74.0	46.6	55.5		62.2	-	55.0	60.0	-	44.2	46.9	41.1	68.8	75.1	62.3
7/3/2016	9:50:00 PM	43.7	62.5	39.1	55.7		64.0	48.3	58.2		63.7	-	56.1	61.8	-	43.8	48.0	41.1	68.2	77.2	62.0
7/3/2016	9:51:00 PM	47.6	55.9	41.4	55.6		72.7	47.7	58.7		64.7	-	54.4	61.5	-	43.9	47.3	41.2	66.7	72.6	58.9
7/3/2016	9:52:00 PM	43.1	56.3	38.5	51.7		65.1	47.1	57.4		63.6	-	54.9	62.2	-	43.8	47.2	41.0	68.3	73.8	58.4
7/3/2016	9:53:00 PM	50.6	59.1	38.1	53.9		69.7	47.9	59.9		64.8	-	54.1	59.2	-	43.2	47.1	41.2	66.6	72.7	57.4
7/3/2016	9:54:00 PM	53.7	58.9	51.8	51.4		62.7	48.1	56.8		63.3	-	54.9	60.0	-	43.3	46.4	41.3	67.1	72.7	58.3
7/3/2016	9:55:00 PM	53.5	56.4	52.0	52.7		65.8	46.9	57.0		63.8	-	54.8	62.0	-	46.8	52.8	41.8	67.0	76.2	56.9
7/3/2016	9:56:00 PM	53.9	55.7	52.7	48.8		52.5	46.2	60.9		64.8	-	55.6	65.7	-	44.0	48.9	41.2	66.9	71.7	58.3
7/3/2016	9:57:00 PM	51.8	58.3	41.0	49.5		52.2	47.3	60.6		64.4	-	55.8	64.3	-	43.4	47.6	41.2	67.7	73.5	59.7
7/3/2016	9:58:00 PM	41.3	46.5	38.1	50.1		53.4	47.1	60.2		65.1	-	57.0	70.9	-	43.5	46.8	40.8	66.4	72.7	58.4
7/3/2016	9:59:00 PM	42.5	49.8	38.6	49.5		52.2	47.6	61.7		65.9	-	57.0	71.4	-	43.4	46.4	41.1	66.8	72.2	59.2
7/3/2016	10:00:00 PM	43.9	54.8	37.2	49.0	57.4	52.6	46.0	60.9	58.5	64.8	-	55.9	63.6	-	43.9	46.8	40.2	66.8	72.3	54.9
7/3/2016	10:01:00 PM	54.4	66.5	38.5	54.2		59.2	49.3	60.8		65.2	-	55.7	69.2	-	45.7	53.7	41.6	67.8	72.6	61.2
7/3/2016	10:02:00 PM	42.1	50.5	38.7	57.7		62.6	50.8	60.7		65.0	-	53.8	64.8	-	44.8	48.0	42.2	66.0	71.6	59.8
7/3/2016	10:03:00 PM	45.0	57.6	39.3	57.2		62.3	49.1	61.2		65.5	-	56.0	65.4	-	45.0	49.7	41.9	67.6	74.3	58.6
7/3/2016	10:04:00 PM	49.2	67.3	38.3	53.8		58.2	48.8	61.1		64.5	-	56.3	67.5	-	42.9	46.2	40.5	67.0	74.3	57.6
7/3/2016	10:05:00 PM	42.1	47.9	38.0	51.6		54.6	48.4	59.6		64.7	-	56.0	70.3	-	43.1	48.1	40.6	67.8	72.3	62.7
7/3/2016	10:06:00 PM	47.1	56.6	39.8	50.2		53.5	47.6	55.4		61.3	-	54.9	62.2	-	43.9	57.9	40.5	67.1	73.4	57.9
7/3/2016	10:07:00 PM	53.9	57.4	52.6	50.7		55.2	45.8	60.9		65.4	-	56.2	64.0	-	44.1	47.1	40.8	65.6	71.4	58.3
7/3/2016	10:08:00 PM	53.5	62.8	51.7	64.6		75.2	50.8	60.0		64.9	-	55.7	67.4	-	52.8	62.1	43.7	66.9	73.0	58.7
7/3/2016	10:09:00 PM	54.1	56.5	52.6	50.7		55.0	47.2	61.0		66.1	-	56.0	64.4	-	57.3	66.6	41.4	67.6	74.0	60.3
7/3/2016	10:10:00 PM	52.8	57.0	41.1	48.0		49.7	46.1	60.7		64.8	-	56.5	67.0	-	45.3	51.6	40.8	67.0	73.4	59.7
7/3/2016	10:11:00 PM	42.8	47.2	38.5	48.4		53.1	46.1	59.7		64.2	-	54.2	65.3	-	44.9	51.8	41.4	67.3	74.2	60.1
7/3/2016	10:12:00 PM	42.6	48.2	39.3	49.5		53.4	47.2	60.0		65.4	-	53.1	61.5	-	45.7	54.2	42.0	66.8	74.9	60.2
7/3/2016	10:13:00 PM	45.5	52.4	41.8	49.5		51.8	47.1	59.6		64.8	-	52.2	58.7	-	43.2	47.3	40.5	67.1	73.6	60.1
7/3/2016	10:14:00 PM	46.5	50.8	41.7	54.1		63.2	48.7	60.1		67.1	-	51.3	57.0	-	43.7	46.1	41.6	67.2	75.2	61.3
7/3/2016	10:15:00 PM	41.6	45.7	38.9	51.4		55.5	48.1	53.6		62.2	-	52.5	62.4	-	44.1	47.0	41.7	67.8	75.1	59.6
7/3/2016	10:16:00 PM	45.0	54.3	39.8	51.5		55.7	47.9	60.4		65.1	-	55.1	64.9	-	44.0	47.1	41.7	67.2	76.8	55.8
7/3/2016	10:17:00 PM	43.4	50.4	38.9	50.1		54.5	46.3	61.0		66.2	-	51.3	58.0	-	44.0	47.9	41.5	68.1	74.1	57.8
7/3/2016	10:18:00 PM	40.7	45.3	38.1	65.5		76.9	48.9	59.7		65.4	-	54.8	68.0	-	43.4	46.7	41.1	67.0	71.1	58.4
7/3/2016	10:19:00 PM	40.3	45.7	37.3	66.1		77.6	51.5	60.6		64.6	-	52.5	60.5	-	43.1	46.8	40.9	66.6	72.7	59.3
7/3/2016	10:20:00 PM	52.7	60.1	38.9	52.3		60.9	47.7	60.3		64.4	-	55.4	69.8	-	42.8	52.9	40.6	67.7	72.2	61.5
7/3/2016	10:21:00 PM	53.1	56.4	52.0	49.2		51.6	46.8	60.6		64.3	-	54.2	64.2	-	43.5	47.9	41.5	66.6	72.4	57.5
7/3/2016	10:22:00 PM	53.5	55.1	52.3	50.4		57.6	46.6	57.2		65.5	-	54.4	66.0	-	44.6	51.6	40.9	67.1	74.5	56.9
7/3/2016	10:23:00 PM	53.9	55.0	53.1	56.5		67.2	47.0	59.5		65.5	-	55.4	66.8	-	43.2	45.8	40.6	67.7	75.3	58.6
7/3/2016	10:24:00 PM	48.9	58.5	40.8	48.2		50.4	46.2	59.6		65.0	-	54.6	63.7	-	43.7	47.8	41.8	66.4	71.9	60.6
7/3/2016	10:25:00 PM	41.9	45.8	39.3	61.7		71.6	45.8	59.7		63.8	-	54.7	62.3	-	44.6	48.7	41.1	67.4	73.7	61.2
7/3/2016	10:26:00 PM	42.7	48.9	38.9	55.9		67.1	46.9	58.5		62.5	-	56.2	69.7	-	43.8	50.6	41.2	67.1	73.6	62.0
7/3/2016	10:27:00 PM	47.3	58.9	40.2	48.2		51.2	46.6	59.3		63.9	-	57.2	67.9	-	43.6	46.7	40.7	66.4	71.6	56.7
7/3/2016	10:28:00 PM	55.5	69.0	40.5	47.6		49.1	46.0	61.7		65.5	-	56.9	71.9	-	44.3	48.9	41.4	67.7	74.6	59.9
7/3/2016	10:29:00 PM	45.7	52.2	40.1	48.1		49.9	46.0	53.2		62.8	-	56.5	66.8	-	43.8	50.4	41.1	67.2	73.2	59.3
7/3/2016	10:30:00 PM	48.6	61.3	40.4	48.4		51.1	46.7	50.1		52.3	-	57.8	67.0	-	42.7	47.7	39.2	67.2	73.9	56.8
7/3/2016	10:31:00 PM	45.4	63.5	40.8	47.1		50.3	44.6	49.2		53.1	-	56.4	65.9	-	43.2	48.7	40.8	66.4	72.9	60.5
7/3/2016	10:32:00 PM	52.6	66.4	40.4	46.1		49.0	43.9	49.4		54.1	-	57.4	69.5	-	44.5	48.1	41.0	66.4	73.1	58.4
7/3/2016	10:33:00 PM	48.1	64.5	39.4	49.0		54.8	44.4	49.8		51.8	-	51.9	67.3	-	44.1	46.6	41.4	68.3	73.6	62.8
7/3/2016	10:34:00 PM	55.1	66.8	41.9	47.5		50.1	44.5	60.2		81.1	-	54.9	68.4	-	44.3	47.1	42.1	66.5	73.2	60.6
7/3/2016	10:35:00 PM	54.8	63.5	52.1	47.2		49.2	45.1	55.7		58.4	-	51.7	60.2	-	44.1	47.9	41.9	65.9	72.8	58.1
7/3/2016	10:36:00 PM	64.7	81.5	53.0	46.2		49.6	44.5	53.8		56.8	-	58.8	71.9	-	43.3	47.0	41.1	67.4	74.5	60.3
7/3/2016	10:37:00 PM	53.3	64.2	40.8	45.3		48.8	43.3	53.8		59.9	-	52.3	66.4	-	43.3	45.4	41.3	67.5	73.6	60.9
7/3/2016	10:38:00 PM	42.8	52.3	38.4	56.8		68.6	44.5	56.2		58.7	-	51.0	63.7	-	42.8	45.8	40.6	66.6	73.2	56.5
7/3/2016	10:39:00 PM	49.8	61.0	39.5	47.5		53.9	43.7	54.5		59.3	-	50.4	57.8	-	43.0	46.4	40.4	67.0	74.3	58.3
7/3/2016	10:40:00 PM	47.5	60.8	39.9	53.0		63.1	46.3	54.5		57.6	-	52.1	66.2	-	43.2	46.4	40.6	67.0	74.2	59.5
7/3/2016	10:41:00 PM	46.4	63.4	39.9	50.0		58.8	47.1	55.6		58.2	-	53.2	62.0	-	42.7	47.3	40.7	67.3	74.7	59.2
7/3/2016	10:42:00 PM	45.0	61.0	39.3	52.2		55.3	48.3	55.0		60.2	-	53.0	66.5	-	43.2	46.4	41.2	66.9	70.9	60.5
7/3/2016	10:43:00 PM	42.6	55.5	38.4	53.4		56.2	50.4	54.3		57.6	-	53.2	68.6	-	43.5	49.1	41.4	66.2	71.2	61.0
7/3/2016	10:44:00 PM	44.6	59.2	38.0	53.1		61.9	45.9	49.5		54.5	-	51.1	59.9	-	43.9	48.0	41.5	67.7	73.4	60.7
7/3/2016	10:45:00 PM	45.1	49.5	41.7	65.9		74.5	48.1	49.8		58.8	-	50.7	61.1	-	44.4	50.7	41.1	65.6	72.6	57.8
7/3/2016	10:46:00 PM	44.4	53.2	40.8	55.1		61.5	47.9	48.3		54.3	-	51.1	60.5	-	42.9	47.8	40.8	66.7	72.9	60.0
7/3/2016	10:47:00 PM	46.0	53.2	38.1	60.1		73.9	46.2	50.9		58.0	-	50.7	55.8	-	43.2	46.4	40.1	66.6	72.2	59.8
7/3/2016	10:48:00 PM	49.8	57.5	38.9	66.8		77.5	52.6	53.9		64.8	-	50.5	57.7	-	44.1	48.9	41.6	66.0	69.9	61.3
7/3/2016	10:49:00 PM	54.7	58.2	52.6	49.0		55.0	45.9	61.3		65.9	-	50.6	56.3	-	42.8	46.1	40.5	66.7	72.8	59.1
7/3/2016	10:50:00 PM	53.7	56.7	52.2	47.8		51.6	45.0	59.6		66.0	-	51.4	62.4	-	42.6	47.6	40.2	66.3	72.5	59.1
7/3/2016	10:51:00 PM	54.2	55.5	53.0	65.7		75.3	47.2	59.3		65.1	-	51.6	61.2	-	45.1	50.3	40.8	66.8	73.6	61.0
7/3/2016	10:52:00 PM	51.3	59.2	42.9	51.7		58.5	46.6	59.6		65.0	-	50.7	58.5	-	45.5	53.9	41.9	67.3	72.8	59.7
7/3/2016	10:53:00 PM	47.1	57.2	41.4	50.1		59.1	45.7	50.8		57.5	-	49.9	55.9	-	43.0	46.7	40.5	67.8	74.2	59.0
7/3/2016	10:54:00 PM	44.4	53.8	40.6	46.4		49.8	44.2	49.0		55.7	-	51.9	55.4	-	45.4	49.6	41.7	65.8	73.3	58.2
7/3/2016	10:55:00 PM	42.4	47.2	39.7	47.6		52.0	45.0	52.2		61.7	-	50.2	56.1	-	44.2	54.6	41.3	66.9	72.7	61.1
7/3/2016	10:56:00 PM	42.2	45.5	39.8	48.5		53.6	46.1	58.8		67.1	-	50.6	63.5	-	43.4	51.8	40.5	66.2	72.2	60.3
7/3/2016	10:57:00 PM	42.4	47.0	38.9	48.3		49.9	46.3	60.0		65.2	-	50.5	55.8	-	45.4	57.4	41.4	66.7	74.0	59.0
7/3/2016	10:58:00 PM	41.0	47.7	38.0	52.3		59.4	45.8	59.7		65.0	-	50.5	56.5	-	44.5	52.4	41.2	67.2	72.8	57.8
7/3/2016	10:59:00 PM	40.5	44.9	38.3	49.1		59.7	44.9	60.4		67.4	-	50.3	55.8	-	43.3	54.2	41.0	68.0	74.0	61.4
7/3/2016	11:00:00 PM	41.1	47.8	37.8	48.3	51.5	50.7	46.4	56.5	59.5	64.1	-	49.8	56.1	-	44.5	60.0	41.1	66.1	71.7	59.0
7/3/2016	11:01:00 PM	41.8	56.6	38.5	49.1		51.6	46.7	60.8		69.2	-	54.2	68.1	-	42.0	44.8	39.9	66.4	74.1	58.4
7/3/2016	11:02:00 PM	53.9	58.2	50.2	47.8		51.9	45.7	60.6		68.3	-	50.3	55.3	-	42.2	46.5	39.6	66.9	71.9	61.5
7/3/2016	11:03:00 PM	53.2	55.0	52.0	50.8		68.7	46.4	59.4		67.2	-	51.4	59.6	-	41.8	44.3	39.7	67.6	74.2	61.4
7/3/2016	11:04:00 PM	53.9	55.0	53.0	48.0		49.6	46.0	59.1		64.7	-	51.1	56.8	-	42.5	46.8	39.7	66.5	72.2	60.7
7/3/2016	11:05:00 PM	52.8	56.7	40.4	63.7		73.0	45.7	59.6		63.5	-	51.6	59.1	-	42.7	45.8	40.2	66.7	73.3	57.3
7/3/2016	11:06:00 PM	42.6	46.8	37.9	55.0		65.9	46.6	60.3		65.0	-	50.1	56.5	-	43.1	46.1	40.2	65.9	72.4	60.4
7/3/2016	11:07:00 PM	46.6	55.5	38.3	47.1		50.6	44.8	60.1		64.2	-	50.0	53.5	-	43.0	45.6	40.5	66.7	72.4	60.0
7/3/2016	11:08:00 PM	42.8	48.1	39.2	48.7		54.3	44.9	55.4		63.9	-	49.6	53.2	-	43.7	46.7	41.1	66.8	74.4	59.0
7/3/2016	11:09:00 PM	42.7	51.6	39.3	50.7		56.6	45.8	59.6		63.3	-	49.7	55.7	-	43.4	52.5	40.7	66.4	72.5	54.9
7/3/2016	11:10:00 PM	41.4	52.3	39.4	58.9		68.9	46.7	59.0		62.9	-	49.3	57.1	-	42.7	48.5	40.9	66.9	73.3	60.3
7/3/2016	11:11:00 PM	43.1	48.2	40.4	53.2		61.1	47.3	59.2		66.3	-	49.2	51.8	-	42.8	47.2	40.8	66.5	72.9	58.9
7/3/2016	11:12:00 PM	50.2	61.7	41.4	53.0		59.9	47.5	59.7		65.4	-	51.4	56.0	-	45.3	51.2	41.9	67.1	72.2	62.0
7/3/2016	11:13:00 PM	50.2	60.8	39.6	54.7		63.1	47.0	60.0		65.4	-	49.8	55.2	-	43.8	53.3	40.5	67.1	72.5	61.6
7/3/2016	11:14:00 PM	42.4	57.8	37.8	47.6		51.3	45.9	59.8		63.7	-	49.8	61.6	-	42.5	55.4	39.9	67.3	72.6	60.6
7/3/2016	11:15:00 PM	45.8	56.5	36.9	49.8		54.9	45.9	60.3		67.5	-	49.1	52.3	-	42.9	49.1	40.0	67.0	72.8	61.9
7/3/2016	11:16:00 PM	53.6	55.4	52.4	50.0		60.6	44.8	60.6		65.2	-	49.9	55.1	-	43.5	46.5	41.1	66.4	72.7	60.9
7/3/2016	11:17:00 PM	53.3	55.0	51.9	46.8		49.1	43.9	58.6		63.1	-	50.1	56.1	-	44.1	48.7	40.6	66.8	71.3	60.9
7/3/2016	11:18:00 PM	53.7	59.8	52.5	47.1		53.2	45.0	60.0		63.0	-	49.8	56.3	-	42.2	44.3	40.1	67.1	74.1	62.1
7/3/2016	11:19:00 PM	51.5	56.0	41.0	53.9		62.2	45.7	60.0		63.6	-	49.5	54.5	-	44.0	51.7	40.5	66.8	71.2	61.7
7/3/2016	11:20:00 PM	42.8	59.2	38.2	46.0		47.7	44.3	60.3		63.7	-	50.1	57.1	-	42.5	54.2	40.1	67.3	72.3	63.0
7/3/2016	11:21:00 PM	47.7	56.4	38.4	57.2		65.3	44.2	59.8		67.0	-	51.0	55.9	-	42.3	44.3	40.7	66.7	73.1	61.0
7/3/2016	11:22:00 PM	39.9	46.2	36.9	48.4		53.4	44.1	58.6		65.1	-	50.2	53.2	-	42.3	49.4	40.4	67.5	71.3	63.2
7/3/2016	11:23:00 PM	43.1	53.0	36.9	47.0		49.7	45.5	59.9		65.3	-	49.7	53.0	-	43.7	48.7	41.5	66.1	71.0	59.5
7/3/2016	11:24:00 PM	38.8	46.4	36.0	47.3		56.8	44.8	59.6		64.6	-	49.4	55.7	-	43.9	49.1	41.3	65.9	72.1	61.0
7/3/2016	11:25:00 PM	37.3	46.8	34.8	47.0		50.2	44.5	59.3		63.9	-	50.1	54.4	-	44.3	52.3	40.7	66.6	69.9	61.6
7/3/2016	11:26:00 PM	37.7	41.5	35.3	47.5		51.6	44.7	59.2		63.0	-	51.0	55.9	-	42.7	48.6	40.4	67.1	72.9	62.6
7/3/2016	11:27:00 PM	37.1	44.3	34.2	47.6		54.0	45.2	58.4		63.4	-	50.4	56.2	-	41.8	44.2	40.0	65.6	70.6	58.9
7/3/2016	11:28:00 PM	38.8	49.8	34.5	46.3		48.7	44.5	50.0		55.9	-	64.0	77.1	-	41.7	45.4	39.6	67.0	73.4	60.7
7/3/2016	11:29:00 PM	38.3	41.3	35.8	46.8		49.3	45.0	51.6		59.5	-	50.4	55.2	-	41.0	46.1	39.0	65.9	72.2	58.0
7/3/2016	11:30:00 PM	52.4	58.0	37.0	48.6		56.0	44.5	58.9		64.0	-	49.2	52.4	-	41.7	46.3	39.1	66.1	69.7	62.2
7/3/2016	11:31:00 PM	53.4	54.5	51.9	47.1		54.2	44.0	58.9		66.3	-	48.8	51.3	-	42.2	45.0	39.8	65.9	70.8	60.0
7/3/2016	11:32:00 PM	54.0	55.1	52.7	45.4		48.0	43.6	59.4		65.0	-	48.7	51.6	-	41.5	44.8	39.2	66.2	70.2	62.9
7/3/2016	11:33:00 PM	52.8	57.2	39.8	51.6		62.7	44.1	58.4		64.6	-	49.3	53.8	-	40.6	46.9	37.9	67.0	73.2	61.1
7/3/2016	11:34:00 PM	39.7	43.0	36.2	45.3		52.6	42.8	59.9		66.6	-	49.6	56.8	-	41.9	48.9	39.7	65.2	71.2	58.0
7/3/2016	11:35:00 PM	38.4	44.6	35.6	46.8		50.7	44.8	59.2		67.0	-	50.1	55.4	-	41.5	45.0	39.5	66.8	74.4	63.1
7/3/2016	11:36:00 PM	40.8	49.8	35.6	45.8		47.9	44.4	55.2		63.2	-	50.0	54.4	-	42.5	45.8	40.2	66.2	71.2	61.8
7/3/2016	11:37:00 PM	37.8	44.9	36.1	47.4		55.5	43.8	60.1		67.0	-	49.3	51.5	-	42.2	44.6	40.4	66.2	72.6	61.1
7/3/2016	11:38:00 PM	37.8	43.6	35.3	45.3		47.0	43.8	59.9		65.9	-	48.5	53.5	-	41.9	44.9	39.5	65.8	70.8	60.8
7/3/2016	11:39:00 PM	38.1	41.3	36.4	45.6		50.0	43.8	59.4		63.5	-	48.1	51.2	-	42.1	45.9	39.5	66.7	72.1	60.6
7/3/2016	11:40:00 PM	37.8	48.1	35.8

7/3/2016	11:57:00 PM	38.1	43.5	35.0	46.1		50.2	44.4	59.6		64.9	-	48.4	51.8	-	42.4	46.4	39.9	65.6	71.9	61.2
7/3/2016	11:58:00 PM	37.1	40.5	35.0	46.1		50.3	43.3	60.1		64.9	-	48.4	53.8	-	40.7	43.4	38.7	66.1	70.2	60.7
7/3/2016	11:59:00 PM	48.7	56.7	35.1	46.1		50.0	42.8	57.0		63.2	-	47.4	49.5	-	42.5	49.4	38.6	65.8	70.3	60.9
7/4/2016	12:00:00 AM	53.8	54.7	52.6	46.4	46.7	49.7	42.9	61.2	49.1	65.8	-	48.6	53.7	-	42.7	58.5	38.6	65.7	70.9	61.6
7/4/2016	12:01:00 AM	53.7	55.4	52.1	45.8		49.7	43.5	57.5		64.0	-	48.4	52.7	-	41.3	46.0	38.5	65.3	70.8	59.6
7/4/2016	12:02:00 AM	54.1	56.6	52.8	46.0		50.0	42.4	53.0		60.1	-	48.5	52.5	-	43.7	52.5	38.9	65.9	71.0	61.9
7/4/2016	12:03:00 AM	49.5	61.0	36.3	44.7		49.7	42.4	47.7		52.8	-	47.6	50.4	-	44.1	55.8	39.7	65.9	70.0	60.9
7/4/2016	12:04:00 AM	44.5	55.1	34.4	44.9		48.3	42.1	46.7		49.6	-	48.9	53.7	-	48.1	59.9	40.7	64.9	69.2	59.9
7/4/2016	12:05:00 AM	37.5	49.8	34.5	44.1		47.7	41.7	46.7		49.5	-	48.8	51.8	-	43.3	46.2	39.2	64.6	69.5	59.4
7/4/2016	12:06:00 AM	37.0	41.8	34.8	43.2		45.3	41.3	47.2		50.3	-	48.2	51.5	-	42.0	45.1	39.8	65.6	69.8	61.8
7/4/2016	12:07:00 AM	37.8	46.5	35.5	44.5		46.9	42.2	46.3		50.0	-	48.5	51.1	-	41.5	43.6	39.8	65.2	69.6	61.0
7/4/2016	12:08:00 AM	40.1	45.7	36.5	47.2		53.1	43.3	45.2		51.2	-	48.7	52.2	-	43.8	49.3	40.6	66.0	71.4	61.4
7/4/2016	12:09:00 AM	48.8	60.0	39.0	51.2		63.8	42.7	46.9		50.8	-	50.1	56.4	-	42.6	46.3	40.4	65.5	70.4	61.5
7/4/2016	12:10:00 AM	41.4	53.1	35.6	45.0		46.9	43.3	45.9		49.5	-	49.4	54.1	-	42.6	46.3	40.5	65.2	68.9	60.5
7/4/2016	12:11:00 AM	39.9	57.3	34.8	44.5		46.3	42.8	45.5		47.5	-	48.7	51.6	-	42.9	45.8	40.9	65.1	69.8	60.6
7/4/2016	12:12:00 AM	39.6	48.1	36.4	45.9		49.8	43.4	47.3		51.0	-	47.6	52.5	-	43.4	47.1	40.9	64.5	69.9	59.7
7/4/2016	12:13:00 AM	52.3	68.0	40.0	47.4		54.3	43.3	47.2		50.9	-	47.7	54.5	-	44.9	67.8	40.1	65.8	69.8	59.0
7/4/2016	12:14:00 AM	53.6	58.7	39.5	54.4		63.9	44.2	47.7		52.9	-	47.0	49.1	-	41.7	44.4	39.0	65.0	69.3	61.0
7/4/2016	12:15:00 AM	53.4	59.4	52.2	44.7		46.7	42.9	46.8		50.4	-	47.0	49.1	-	46.3	54.2	39.2	65.2	70.5	61.6
7/4/2016	12:16:00 AM	54.2	56.4	52.7	45.9		50.3	42.4	49.0		57.0	-	48.2	52.6	-	45.9	53.7	40.2	65.6	68.7	61.9
7/4/2016	12:17:00 AM	52.4	57.2	39.5	44.4		46.8	42.4	48.6		55.1	-	47.8	50.4	-	41.9	44.6	39.7	65.2	70.4	61.0
7/4/2016	12:18:00 AM	38.1	43.1	35.0	44.5		47.8	42.3	50.0		65.1	-	48.6	55.3	-	41.3	44.3	39.2	66.4	71.8	61.4
7/4/2016	12:19:00 AM	45.5	54.9	36.1	48.3		51.4	44.6	45.4		54.1	-	47.9	52.9	-	41.2	43.9	39.3	65.1	72.1	60.0
7/4/2016	12:20:00 AM	36.5	40.2	34.5	45.9		50.6	42.4	45.1		54.2	-	47.9	50.3	-	40.9	45.0	38.6	65.4	69.9	61.0
7/4/2016	12:21:00 AM	35.6	38.7	33.7	44.4		47.6	42.6	48.8		57.6	-	47.6	51.5	-	42.5	46.3	40.0	65.7	69.5	62.4
7/4/2016	12:22:00 AM	39.3	44.0	34.6	44.0		47.8	42.4	48.1		57.9	-	56.3	69.8	-	41.2	44.1	38.7	65.2	68.9	62.2
7/4/2016	12:23:00 AM	36.8	42.4	34.2	47.3		49.7	44.2	50.9		61.2	-	54.4	68.1	-	42.3	46.7	39.6	65.2	69.9	59.6
7/4/2016	12:24:00 AM	35.4	39.3	33.5	45.9		59.6	42.6	46.3		52.0	-	49.6	56.5	-	40.5	42.9	38.4	65.4	70.6	61.5
7/4/2016	12:25:00 AM	35.8	38.9	33.7	45.0		50.0	42.6	45.7		49.4	-	48.5	57.6	-	41.9	45.1	39.6	65.2	70.0	60.8
7/4/2016	12:26:00 AM	36.3	39.6	33.4	46.7		51.4	44.1	46.3		51.5	-	47.4	50.4	-	43.1	52.9	39.1	65.0	69.6	61.7
7/4/2016	12:27:00 AM	38.3	50.5	33.4	45.0		48.3	42.9	45.3		48.9	-	47.6	53.4	-	41.1	44.9	38.6	64.7	69.3	60.2
7/4/2016	12:28:00 AM	35.7	38.4	33.9	44.6		49.6	42.3	45.5		54.3	-	46.9	49.5	-	40.7	42.6	38.9	64.4	67.9	59.7
7/4/2016	12:29:00 AM	53.8	58.2	34.3	46.1		48.7	43.8	45.7		52.1	-	47.1	50.9	-	40.4	43.9	38.5	66.1	70.8	60.4
7/4/2016	12:30:00 AM	53.4	54.7	52.3	44.8		53.7	42.0	44.5		48.4	-	48.8	52.6	-	41.1	45.0	38.3	65.1	69.9	61.7
7/4/2016	12:31:00 AM	54.6	55.9	53.3	49.6		59.5	43.2	44.9		48.1	-	49.0	51.9	-	41.6	46.0	38.9	65.2	69.7	61.1
7/4/2016	12:32:00 AM	51.3	56.9	38.7	47.8		52.8	45.3	45.7		49.3	-	48.5	50.9	-	43.1	49.1	39.6	64.7	68.8	58.2
7/4/2016	12:33:00 AM	36.5	45.3	33.7	48.2		60.3	43.9	45.6		48.3	-	48.0	53.1	-	41.4	45.9	38.2	65.4	69.8	62.0
7/4/2016	12:34:00 AM	35.9	46.0	33.4	49.9		63.3	44.6	45.7		50.8	-	48.3	53.3	-	40.8	46.4	38.5	65.4	69.9	62.3
7/4/2016	12:35:00 AM	35.9	38.4	33.9	48.3		61.0	43.7	45.9		49.2	-	48.0	51.6	-	40.9	44.8	39.0	65.4	70.1	61.5
7/4/2016	12:36:00 AM	35.9	40.6	33.5	46.7		55.4	43.0	44.9		47.2	-	48.8	52.0	-	41.3	45.4	39.3	64.9	69.0	61.6
7/4/2016	12:37:00 AM	37.9	43.7	34.0	44.3		46.6	42.7	45.9		50.5	-	49.8	54.6	-	42.1	46.5	39.1	65.5	70.7	60.1
7/4/2016	12:38:00 AM	36.9	39.3	35.1	46.0		50.5	42.9	44.9		48.7	-	49.3	53.6	-	41.8	44.2	39.8	65.1	68.4	61.3
7/4/2016	12:39:00 AM	38.7	41.5	36.3	45.2		47.5	43.3	45.4		49.3	-	48.8	52.6	-	42.9	46.6	40.7	65.6	70.5	60.2
7/4/2016	12:40:00 AM	38.4	41.0	36.9	44.5		48.4	42.4	44.4		49.3	-	48.7	56.7	-	41.7	46.5	39.6	65.5	70.2	62.0
7/4/2016	12:41:00 AM	37.8	40.4	36.5	46.5		49.7	43.8	44.8		47.7	-	48.4	55.5	-	42.0	45.3	39.8	64.9	69.9	60.0
7/4/2016	12:42:00 AM	37.7	41.3	34.9	46.4		49.8	44.0	46.8		49.0	-	49.0	51.7	-	43.0	46.0	41.0	64.9	70.0	61.3
7/4/2016	12:43:00 AM	47.0	57.6	35.0	46.0		54.9	43.0	44.8		48.1	-	48.9	52.0	-	43.1	46.3	41.1	64.8	69.2	60.2
7/4/2016	12:44:00 AM	53.9	55.0	52.3	46.9		51.4	44.0	45.6		48.0	-	49.5	53.3	-	43.3	49.5	40.9	65.1	69.0	60.2
7/4/2016	12:45:00 AM	53.4	55.1	52.1	45.3		47.7	43.1	44.3		46.3	-	49.8	54.1	-	43.1	47.3	40.2	64.6	69.2	60.2
7/4/2016	12:46:00 AM	54.4	55.7	53.0	44.4		46.5	42.4	45.6		51.0	-	49.5	52.7	-	42.9	48.8	40.5	64.5	68.7	60.8
7/4/2016	12:47:00 AM	44.8	55.8	33.9	44.6		49.7	42.3	44.4		47.1	-	49.1	52.4	-	42.7	49.0	40.5	65.0	68.5	61.4
7/4/2016	12:48:00 AM	35.7	39.2	33.9	44.1		48.2	41.8	45.6		48.4	-	49.0	51.4	-	42.1	45.7	39.8	64.9	70.2	61.0
7/4/2016	12:49:00 AM	36.2	40.2	34.4	44.7		46.6	42.8	46.9		56.1	-	49.6	52.9	-	42.3	49.8	40.2	63.7	68.3	59.7
7/4/2016	12:50:00 AM	35.9	40.9	32.9	44.8		49.2	42.9	49.0		53.1	-	50.2	57.6	-	43.2	46.7	39.9	65.3	69.6	62.4
7/4/2016	12:51:00 AM	43.0	51.9	33.7	46.3		50.6	43.5	48.8		59.1	-	48.9	54.4	-	42.9	46.0	39.9	64.3	70.4	61.2
7/4/2016	12:52:00 AM	38.7	56.5	33.5	45.2		50.0	43.0	47.0		50.8	-	48.8	55.1	-	43.4	48.1	40.1	64.7	69.3	62.2
7/4/2016	12:53:00 AM	45.6	56.4	34.5	44.0		45.7	42.3	46.7		49.8	-	48.0	55.3	-	40.4	43.7	38.1	64.6	67.3	61.2
7/4/2016	12:54:00 AM	38.3	47.6	35.1	43.7		45.8	42.1	48.4		59.9	-	48.8	57.0	-	41.6	44.7	38.1	65.2	68.7	62.5
7/4/2016	12:55:00 AM	36.9	39.7	35.4	44.6		46.7	42.2	47.4		50.3	-	48.6	52.0	-	41.9	45.5	39.5	64.4	67.9	60.7
7/4/2016	12:56:00 AM	37.0	41.6	35.1	44.5		49.1	42.3	48.8		62.6	-	48.1	51.6	-	41.0	46.1	38.9	64.3	69.0	61.6
7/4/2016	12:57:00 AM	39.0	45.0	35.1	46.3		50.3	43.7	47.8		51.2	-	48.1	53.1	-	41.0	44.6	38.4	64.0	67.2	61.4
7/4/2016	12:58:00 AM	42.7	57.2	36.3	48.4		56.4	44.8	47.2		50.1	-	48.7	51.3	-	40.5	43.9	38.0	64.8	67.8	60.8
7/4/2016	12:59:00 AM	49.9	58.0	36.2	51.3		59.3	48.3	48.9		63.1	-	47.7	50.5	-	41.4	48.3	39.0	64.6	69.0	61.6
7/4/2016	1:00:00 AM	53.6	54.8	52.2	51.8	49.2	58.3	46.9	47.7	46.3	51.6	-	50.5	57.3	-	41.3	45.6	39.3	64.3	67.9	60.2
7/4/2016	1:01:00 AM	53.8	55.1	52.5	46.7		57.6	42.7	48.3		60.7	-	48.9	57.4	-	41.2	46.2	38.9	64.3	67.4	61.9
7/4/2016	1:02:00 AM	54.1	55.1	53.1	44.3		46.6	42.3	43.7		49.3	-	47.1	49.8	-	41.2	45.1	39.0	64.3	69.0	60.4
7/4/2016	1:03:00 AM	53.3	61.9	39.8	43.4		45.6	41.4	49.4		51.6	-	47.8	51.0	-	41.2	43.8	38.5	64.4	68.5	60.1
7/4/2016	1:04:00 AM	38.7	48.2	34.3	44.8		48.8	41.8	49.8		55.2	-	46.9	50.8	-	40.8	47.8	38.5	63.7	68.1	60.6
7/4/2016	1:05:00 AM	36.5	41.6	33.7	43.5		47.8	41.7	48.3		52.0	-	48.1	52.1	-	40.5	44.3	38.2	64.6	68.4	60.1
7/4/2016	1:06:00 AM	37.3	46.5	33.7	43.7		45.9	41.7	47.9		50.1	-	47.6	52.4	-	41.8	46.2	39.4	64.7	68.8	61.6
7/4/2016	1:07:00 AM	41.1	52.0	34.4	43.6		46.1	41.9	49.8		54.2	-	46.2	50.8	-	41.2	45.4	39.0	64.0	68.1	60.8
7/4/2016	1:08:00 AM	51.2	70.4	37.9	43.0		44.7	41.2	50.0		52.6	-	46.8	49.5	-	39.7	45.1	36.8	63.6	66.9	59.9
7/4/2016	1:09:00 AM	41.9	56.3	37.3	44.0		45.8	42.1	48.2		51.3	-	46.6	49.0	-	38.9	42.9	36.4	64.5	69.4	61.4
7/4/2016	1:10:00 AM	38.7	41.2	36.8	44.1		47.2	42.4	49.3		53.2	-	47.8	50.3	-	40.1	44.1	37.4	63.8	67.9	61.3
7/4/2016	1:11:00 AM	37.8	41.6	34.5	44.5		46.7	42.3	49.2		51.9	-	46.7	57.9	-	40.1	44.6	36.5	64.0	68.3	61.0
7/4/2016	1:12:00 AM	36.6	39.8	34.4	44.6		47.2	42.1	48.5		52.2	-	47.3	50.9	-	41.7	46.2	38.1	63.0	66.6	60.7
7/4/2016	1:13:00 AM	47.3	59.1	35.1	46.5		49.8	44.1	49.3		54.1	-	48.4	51.7	-	40.9	44.0	38.4	64.0	68.0	61.7
7/4/2016	1:14:00 AM	36.0	39.2	33.1	45.4		48.3	43.0	50.6		53.0	-	48.2	51.6	-	40.0	42.7	38.2	64.6	68.6	62.0
7/4/2016	1:15:00 AM	52.2	57.2	33.8	44.0		46.7	41.8	47.1		51.5	-	48.5	52.4	-	39.9	43.1	37.8	63.8	67.2	60.8
7/4/2016	1:16:00 AM	54.1	55.1	53.2	45.1		47.8	42.4	47.4		52.7	-	48.6	53.6	-	40.3	45.0	37.1	63.2	66.9	58.7
7/4/2016	1:17:00 AM	54.6	55.7	53.5	45.0		48.7	42.2	46.4		55.5	-	48.9	55.8	-	40.9	46.8	38.1	64.5	67.9	61.9
7/4/2016	1:18:00 AM	53.8	55.1	52.5	47.0		58.8	43.7	44.3		46.9	-	48.8	54.5	-	40.2	48.2	36.5	64.2	66.9	61.7
7/4/2016	1:19:00 AM	50.8	55.3	39.4	46.5		49.7	43.7	43.1		46.4	-	49.4	54.1	-	40.9	44.9	38.2	64.6	68.6	61.6
7/4/2016	1:20:00 AM	38.0	43.6	35.5	48.1		50.6	45.4	43.3		45.9	-	48.4	55.9	-	41.4	49.1	37.7	63.4	66.1	61.0
7/4/2016	1:21:00 AM	38.4	44.5	35.5	46.6		49.0	44.1	43.8		47.3	-	49.7	63.0	-	40.7	44.8	37.7	63.8	66.5	61.3
7/4/2016	1:22:00 AM	37.1	42.8	34.8	46.1		50.8	43.5	44.5		47.3	-	48.4	60.7	-	40.0	42.6	38.3	63.8	67.5	61.2
7/4/2016	1:23:00 AM	36.8	39.2	34.9	46.4		53.1	42.8	42.9		44.6	-	47.8	60.5	-	40.6	43.5	37.5	63.4	66.7	59.8
7/4/2016	1:24:00 AM	36.6	39.1	34.3	45.9		51.7	43.4	44.2		46.6	-	49.4	60.3	-	40.0	44.3	37.3	64.3	69.3	61.1
7/4/2016	1:25:00 AM	36.1	39.6	32.9	56.9		63.5	43.8	43.8		46.2	-	48.8	62.0	-	40.5	43.8	38.4	63.0	67.4	60.7
7/4/2016	1:26:00 AM	39.7	47.5	34.5	58.1		64.0	44.9	43.7		46.4	-	46.4	51.7	-	41.5	48.0	38.1	62.9	66.7	61.0
7/4/2016	1:27:00 AM	46.0	54.8	36.2	50.2		56.5	43.2	43.3		47.8	-	46.5	51.4	-	39.8	43.7	37.1	64.0	68.3	60.8
7/4/2016	1:28:00 AM	38.9	48.5	36.3	46.7		54.8	43.7	42.3		44.6	-	49.2	65.2	-	38.9	43.4	36.4	62.7	65.7	59.6
7/4/2016	1:29:00 AM	39.1	46.1	34.9	48.7		63.1	45.3	43.9		46.7	-	48.5	51.1	-	41.5	49.6	37.0	63.8	72.2	59.8
7/4/2016	1:30:00 AM	47.8	56.7	33.8	49.2		57.0	45.5	43.8		45.8	-	46.7	53.8	-	39.8	42.9	36.8	63.2	65.4	61.0
7/4/2016	1:31:00 AM	53.5	54.5	52.1	48.6		51.8	45.1	43.4		45.5	-	47.6	51.6	-	41.9	46.5	38.7	63.8	70.6	61.1
7/4/2016	1:32:00 AM	53.5	55.1	52.4	53.7		60.8	47.2	44.4		46.3	-	47.5	58.2	-	40.2	45.9	37.7	64.1	67.2	60.9
7/4/2016	1:33:00 AM	54.2	55.5	52.7	59.6		66.7	45.2	48.0		51.7	-	48.4	58.2	-	39.8	44.0	36.9	62.9	66.6	59.9
7/4/2016	1:34:00 AM	51.9	56.1	39.3	45.3		47.8	43.4	45.9		52.2	-	47.7	51.8	-	39.9	47.5	37.8	64.0	68.5	61.3
7/4/2016	1:35:00 AM	37.5	46.3	32.7	44.4		46.3	42.6	44.7		50.8	-	47.1	49.8	-	40.1	42.8	37.9	63.3	66.5	60.6
7/4/2016	1:36:00 AM	35.2	39.7	32.5	44.3		46.5	42.4	43.5		46.6	-	48.5	52.0	-	39.3	43.0	36.9	63.7	68.1	61.3
7/4/2016	1:37:00 AM	37.4	41.9	33.7	44.3		47.7	42.0	43.3		45.9	-	47.1	49.5	-	39.8	46.7	36.8	63.9	68.3	61.0
7/4/2016	1:38:00 AM	44.1	52.8	37.5	44.9		47.9	41.5	44.9		48.8	-	46.5	55.7	-	39.7	42.7	37.3	63.9	68.4	61.1
7/4/2016	1:39:00 AM	39.0	40.9	37.2	44.4		46.5	42.4	51.0		59.4	-	48.5	53.3	-	40.4	46.5	37.5	62.8	66.6	60.0
7/4/2016	1:40:00 AM	39.5	44.9	37.5	43.8		45.2	42.2	45.4		50.3	-	49.3	54.6	-	39.1	42.0	37.1	63.8	67.2	60.6
7/4/2016	1:41:00 AM	44.8	57.6	36.3	43.5		45.3	41.5	42.0		46.5	-	48.2	63.5	-	38.7	49.7	36.5	63.7	67.3	60.9
7/4/2016	1:42:00 AM	53.3	54.3	52.3	44.5		46.8	42.2	44.1		47.7	-	49.0	64.2	-	40.7	44.8	38.0	63.7	66.9	61.5
7/4/2016	1:43:00 AM	54.0	55.7	52.6	46.6		52.8	43.4	44.1		48.2	-	49.1	65.6	-	39.2	44.4	36.8	63.2	66.5	59.6
7/4/2016	1:44:00 AM	53.9	55.4	52.0	45.4		48.6	43.0	44.4		48.4	-	47.2	57.8	-	38.8	47.5	36.2	64.0	68.0	60.9
7/4/2016	1:45:00 AM	52.4	53.4	51.5	43.6		45.3	41.7	44.4		47.7	-	49.4	62.2	-	39.1	42.6	36.9	63.7	66.0	61.5
7/4/2016	1:46:00 AM	52.5	53.8	51.6	45.3		48.9	42.4	43.9		47.8	-	48.1	63.2	-	40.4	46.7	37.5	62.6	66.1	59.8
7/4/2016	1:47:00 AM	53.0	54.5	51.5	44.4		47.1	41.3	42.9		44.7	-	46.6	50.1	-	45.6	56.8	39.2	61.9	65.9	59.6
7/4/2016	1:48:00 AM	52.4	53.2	51.5	44.6		49.4	41.5	47.1		54.8	-	46.5	49.2	-	40.9	46.6	37.9	63.3	66.4	61.1
7/4/2016	1:49:00 AM	52.4	53.3	51.6	57.8		65.0	46.0	46.2		54.7	-	46.2	49.4	-	38.7	41.7	36.3	63.2	66.1	60.6
7/4/2016	1:50:00 AM	52.5	53.2	51.7	49.7		62.3	41.8	43.0		45.9	-	46.0	49.8	-	38.7	41.8	36.5	63.1	66.9	60.4
7/4/2016	1:51:00 AM	52.9	56.9	51.6	43.3		46.1	41.4	43.9		46.8	-	46.6	50.5	-	39.8	43.4	37.5	63.2	66.2	59.5
7/4/2016	1:52:00 AM	52.2	52.9	51.4	44.3		47.8	41.4	43.2		47.9	-	47.7	56.1	-	39.3	43.6	37.2	63.4	66.4	60.7
7/4/2016	1:53:00 AM	52.2	53.0	51.4	44.0		46.4	41.6	47.1		57.1	-	47.9	52.3	-	38.6	45.0	35.4	63.7	66.5	61.2
7/4/2016	1:54:00 AM	52.1	52.9	51.3	44.4		46.4	42.3	45.3		55.2	-	49.8	57.8	-	40.1	46.7	36.5	62.6	64.7	60.1
7/4/2016	1:55:00 AM	52.0	52.9	51.2	45.2		56.4	43.2	43.1		48.1	-	52.1	58.4	-	39.6	43.7	36.5	63.3	67.2	60.5
7/4/2016	1:56:00 AM	52.3	54.8	51.2	44.7		48.0	42.2	44.4		63.9	-	51.3	60.2	-	40.2	44.3	37.8	63.0	65.6	60.0
7/4/2016	1:57:00 AM	51.9	52.7	51.1	44.5		46.4	42.4	43.1		46.7	-	46.4	49.1	-	39.7	43.5	36.6	63.5	67.4	60.7
7/4/2016	1:58:00 AM	51.9	52.7	51.1	43.3		47.7	41.6	42.3		44.9	-	46.0	56.0	-	43.5	52.9	37.3	62.9	68.5	60.4
7/4/2016	1:59:00 AM	52.0	52.9	51.1	44.0		46.7	41.6	44.4		48.3	-	46.7	59.3	-	49.5	63.1	39.0	63.2	65.7	60.2
7/4/2016	2:00:00 AM	52.0	53.0	51.1	44.6	44.1	47.0	41.8	43.2	41.9	46.4	-	45.7	57.1	-	54.3	68.8	40.5	62.4	65.5	60.1
7/4/2016	2:01:00 AM	51.8	52.6	50.9	42.9		45.2	40.4	43.1		45.9	-	46.0	51.3	-	46.7	57.2	38.6	62.6	64.6	60.8
7/4/2016	2:02:00 AM	51.8	52.7	51.1	42.0		44.0	40.0	42.9		44.9	-	47.2	52.3	-	39.9	44.0	35.8	63.2	66.0	59.6
7/4/2016	2:03:00 AM	51.8	52.8	50.9	43.1		52.2	41.0	42.6		45.0	-	45.9	48.5	-	47.9	63.1	36.3	62.4	65.3	59.8
7/4/2016	2:04:00 AM	52.0	52.9	51.1	42.8		48.1	40.8	41.5		44.3	-	45.3	49.5	-	38.0	49.9	35.0	62.9	65.5	60.6
7/4/2016	2:05:00 AM	52.1	53.0	51.3	43.0		45.3	40.7	41.5		43.9	-	45.4	51.3	-	38.1	42.4	35.1	62.3	66.3	59.3
7/4/2016	2:06:00 AM	52.0

7/4/2016	2:23:00 AM	52.2	53.1	51.3	40.7		42.0	39.3	42.3		44.0	-	44.8	49.1	-	45.6	57.2	36.2	63.4	66.1	61.6
7/4/2016	2:24:00 AM	52.1	52.9	51.2	41.5		44.8	39.8	42.4		44.2	-	44.6	49.4	-	43.0	55.0	37.8	62.6	65.6	59.9
7/4/2016	2:25:00 AM	52.0	54.7	51.3	41.6		44.2	40.0	41.9		45.0	-	44.0	48.6	-	39.1	43.8	37.0	62.3	65.7	59.5
7/4/2016	2:26:00 AM	52.0	52.8	51.2	42.8		45.2	41.2	41.5		43.9	-	44.2	50.0	-	38.1	42.8	35.4	62.1	65.6	59.9
7/4/2016	2:27:00 AM	52.1	54.4	51.1	42.9		46.1	41.2	41.0		42.8	-	43.7	49.1	-	39.3	44.6	36.8	62.1	65.7	59.7
7/4/2016	2:28:00 AM	52.1	55.3	51.2	43.5		47.2	40.6	41.5		42.9	-	44.8	49.0	-	39.0	44.4	35.6	61.9	64.5	59.8
7/4/2016	2:29:00 AM	52.0	53.0	51.3	41.2		45.0	39.5	41.3		43.6	-	43.7	47.5	-	38.7	43.5	36.3	62.1	65.0	58.7
7/4/2016	2:30:00 AM	52.0	54.7	51.2	40.7		43.0	38.9	42.0		45.6	-	45.5	50.6	-	38.6	47.5	36.2	62.6	65.0	60.5
7/4/2016	2:31:00 AM	52.0	55.5	51.1	41.4		43.3	39.3	41.3		42.9	-	44.7	49.0	-	38.7	46.0	34.5	61.2	64.3	58.4
7/4/2016	2:32:00 AM	52.0	53.1	51.2	41.4		43.5	39.6	40.6		42.9	-	46.9	55.7	-	39.2	48.5	36.6	61.5	63.7	59.2
7/4/2016	2:33:00 AM	52.0	52.9	51.1	41.5		44.8	39.8	41.6		49.1	-	43.7	50.3	-	39.1	43.7	36.2	61.6	63.8	59.5
7/4/2016	2:34:00 AM	52.1	53.1	51.2	43.3		45.0	41.6	42.0		46.9	-	46.3	49.9	-	40.1	45.6	37.5	61.6	64.8	59.4
7/4/2016	2:35:00 AM	52.0	52.8	51.1	43.2		46.0	41.3	42.7		58.5	-	46.8	51.3	-	39.6	45.1	37.3	62.5	66.3	59.5
7/4/2016	2:36:00 AM	52.0	52.9	51.2	41.6		43.9	40.1	40.4		42.7	-	45.4	50.2	-	40.1	43.9	37.2	62.9	65.6	60.3
7/4/2016	2:37:00 AM	52.0	52.7	51.1	42.5		45.3	40.2	41.7		44.1	-	45.6	54.4	-	39.7	43.9	37.4	63.1	66.4	61.1
7/4/2016	2:38:00 AM	52.0	52.8	51.2	41.8		44.4	40.1	40.6		43.6	-	44.4	53.9	-	39.7	44.1	37.4	62.0	63.7	60.5
7/4/2016	2:39:00 AM	52.0	52.8	51.1	41.9		43.7	40.1	42.3		44.8	-	45.4	49.5	-	39.2	44.5	36.6	62.4	65.1	60.5
7/4/2016	2:40:00 AM	52.1	52.9	51.3	42.1		44.7	40.2	42.6		46.2	-	48.0	59.0	-	39.5	44.6	36.2	62.0	64.9	60.1
7/4/2016	2:41:00 AM	52.0	52.7	50.9	43.2		46.0	41.1	43.3		49.1	-	44.1	49.2	-	38.7	41.9	36.4	61.0	63.6	58.2
7/4/2016	2:42:00 AM	52.0	53.1	51.1	42.7		46.4	39.8	40.7		43.7	-	42.3	48.1	-	39.4	45.3	36.5	61.3	64.0	59.1
7/4/2016	2:43:00 AM	51.7	52.8	50.9	41.9		46.3	39.8	41.6		43.2	-	44.3	49.0	-	38.3	42.4	36.5	61.1	63.7	59.1
7/4/2016	2:44:00 AM	51.7	52.6	50.9	43.2		47.8	40.5	41.1		44.4	-	44.0	47.8	-	38.4	43.8	36.3	61.2	63.9	58.6
7/4/2016	2:45:00 AM	51.8	52.7	51.0	46.1		55.7	40.0	40.3		41.9	-	44.1	49.5	-	38.4	41.3	36.6	60.5	62.6	58.3
7/4/2016	2:46:00 AM	51.8	52.8	51.1	42.8		45.3	40.2	41.5		47.4	-	42.9	47.2	-	39.7	44.3	36.5	60.6	63.4	58.0
7/4/2016	2:47:00 AM	51.9	52.6	51.0	43.2		45.0	41.1	40.2		43.4	-	44.4	51.7	-	43.5	50.4	38.7	60.9	63.8	57.8
7/4/2016	2:48:00 AM	51.9	52.7	51.1	43.2		45.0	41.2	40.6		42.3	-	44.4	49.3	-	40.0	44.8	37.0	60.8	63.8	58.6
7/4/2016	2:49:00 AM	51.8	52.6	50.9	42.6		44.8	40.8	41.2		46.0	-	43.2	47.8	-	37.7	41.3	35.4	61.8	65.6	59.0
7/4/2016	2:50:00 AM	52.0	52.8	51.2	42.2		45.4	40.5	40.7		45.2	-	44.9	49.3	-	38.9	44.7	36.0	61.1	64.9	58.2
7/4/2016	2:51:00 AM	52.2	53.6	51.3	41.8		48.2	39.8	41.9		48.9	-	45.3	49.8	-	38.0	43.4	35.0	62.4	66.4	59.5
7/4/2016	2:52:00 AM	52.1	52.9	51.1	41.2		48.4	38.7	41.1		43.4	-	44.3	48.9	-	38.8	43.2	35.7	62.4	65.7	59.1
7/4/2016	2:53:00 AM	52.0	52.9	51.2	41.0		45.0	39.3	40.3		41.6	-	43.4	49.0	-	40.1	44.7	37.3	62.6	65.4	60.5
7/4/2016	2:54:00 AM	52.0	52.8	51.0	40.4		45.0	38.5	41.4		44.6	-	43.9	52.5	-	39.1	42.9	36.6	62.7	65.7	60.6
7/4/2016	2:55:00 AM	51.9	52.6	51.1	40.2		44.1	38.3	41.3		44.6	-	43.9	48.2	-	38.8	43.1	36.3	61.4	65.6	58.5
7/4/2016	2:56:00 AM	52.0	52.9	51.2	39.9		44.4	37.7	40.6		42.0	-	44.0	48.0	-	38.4	42.8	35.7	62.0	65.6	59.3
7/4/2016	2:57:00 AM	52.0	52.7	51.2	39.6		42.0	37.8	40.7		43.1	-	43.3	47.2	-	37.5	40.6	35.3	62.1	65.3	59.5
7/4/2016	2:58:00 AM	52.0	52.9	51.2	39.4		41.5	37.2	41.1		44.0	-	43.0	48.1	-	38.4	44.2	36.0	62.0	64.9	59.4
7/4/2016	2:59:00 AM	52.1	53.7	51.1	38.9		40.7	37.3	40.8		42.8	-	46.5	51.4	-	39.4	43.5	37.1	62.5	66.0	59.6
7/4/2016	3:00:00 AM	51.9	52.8	51.1	38.3	43.0	40.2	36.8	41.6	41.3	46.7	-	44.4	48.1	-	41.6	49.9	37.8	61.6	64.0	59.0
7/4/2016	3:01:00 AM	51.9	52.8	51.1	38.4		40.6	37.1	39.7		41.4	-	45.2	49.8	-	45.0	56.5	39.4	61.9	65.6	59.7
7/4/2016	3:02:00 AM	51.8	52.8	51.0	39.4		41.8	37.1	40.1		41.7	-	42.7	46.3	-	47.8	58.4	39.4	62.6	66.1	59.6
7/4/2016	3:03:00 AM	51.9	52.8	51.1	39.8		43.7	38.0	40.6		43.2	-	42.2	46.8	-	48.5	62.6	38.6	62.1	65.1	59.2
7/4/2016	3:04:00 AM	51.8	52.7	51.0	40.4		44.6	38.2	42.6		48.8	-	44.9	49.7	-	46.3	57.9	37.5	61.3	64.6	58.2
7/4/2016	3:05:00 AM	51.8	52.5	50.9	41.5		44.8	39.6	42.0		44.6	-	44.2	49.9	-	38.7	42.9	36.1	62.1	65.0	59.7
7/4/2016	3:06:00 AM	51.9	52.8	50.9	42.0		44.7	40.1	41.2		43.4	-	43.6	47.2	-	39.3	42.6	37.2	61.9	65.2	59.1
7/4/2016	3:07:00 AM	51.8	52.7	51.1	41.5		52.9	39.6	41.0		43.2	-	41.6	44.4	-	39.7	44.0	36.9	62.4	65.7	59.0
7/4/2016	3:08:00 AM	51.8	52.8	51.0	41.1		43.6	38.9	40.6		42.2	-	44.4	49.4	-	39.5	44.2	36.0	61.9	64.8	58.0
7/4/2016	3:09:00 AM	51.7	52.6	50.9	40.4		42.0	38.6	40.3		43.0	-	44.7	48.9	-	38.5	42.1	36.0	61.9	64.1	60.4
7/4/2016	3:10:00 AM	51.7	52.6	50.7	41.6		43.3	39.9	41.5		44.5	-	43.7	47.8	-	37.9	43.0	35.0	63.0	66.4	61.1
7/4/2016	3:11:00 AM	51.8	52.7	51.0	40.9		47.7	39.1	42.4		44.9	-	44.7	49.5	-	39.1	46.7	36.1	62.1	65.3	59.8
7/4/2016	3:12:00 AM	51.9	52.8	51.0	42.0		44.5	39.9	43.2		53.9	-	43.2	47.5	-	39.3	45.1	36.6	60.9	66.3	57.1
7/4/2016	3:13:00 AM	52.0	52.8	50.9	41.7		44.1	40.0	42.4		45.2	-	45.0	50.8	-	39.0	42.4	36.8	60.7	64.3	58.3
7/4/2016	3:14:00 AM	51.7	52.6	51.0	42.2		44.6	40.5	41.6		44.1	-	46.9	54.8	-	40.0	49.0	37.1	61.4	72.4	58.6
7/4/2016	3:15:00 AM	51.9	52.9	51.1	41.6		44.3	39.7	42.1		45.6	-	45.0	49.6	-	49.1	63.3	39.6	59.9	62.9	57.0
7/4/2016	3:16:00 AM	51.9	52.7	50.9	42.8		46.0	40.9	42.1		46.6	-	45.0	51.1	-	39.4	43.7	37.0	61.5	64.7	58.0
7/4/2016	3:17:00 AM	51.7	52.8	51.0	42.7		47.0	40.7	42.4		47.3	-	44.5	48.2	-	40.0	42.6	37.9	60.6	64.0	57.7
7/4/2016	3:18:00 AM	51.8	52.7	50.9	41.5		44.7	40.1	42.1		46.5	-	43.7	48.1	-	40.2	44.3	36.6	61.0	63.4	57.8
7/4/2016	3:19:00 AM	52.0	53.1	51.3	41.4		43.4	39.7	41.5		46.6	-	44.3	47.7	-	38.8	42.0	36.3	60.9	63.6	58.1
7/4/2016	3:20:00 AM	51.9	53.1	51.0	40.5		44.6	39.0	41.6		47.3	-	45.1	49.0	-	39.6	43.1	37.3	60.4	63.0	57.7
7/4/2016	3:21:00 AM	51.7	52.5	50.9	40.7		43.5	38.6	41.5		46.6	-	44.9	51.7	-	39.6	42.9	37.0	61.0	65.5	58.0
7/4/2016	3:22:00 AM	52.1	53.9	51.1	41.4		43.3	39.6	39.6		41.2	-	46.6	53.9	-	39.0	43.6	36.6	62.6	65.1	60.7
7/4/2016	3:23:00 AM	51.8	53.0	50.8	41.7		44.2	40.0	41.7		45.0	-	42.2	46.7	-	38.3	47.2	35.5	60.6	63.0	57.4
7/4/2016	3:24:00 AM	51.8	53.4	50.8	41.8		44.0	40.4	40.2		42.7	-	44.8	47.7	-	39.4	46.1	36.5	62.5	65.1	60.1
7/4/2016	3:25:00 AM	51.7	52.8	50.9	41.3		44.5	39.2	41.4		43.2	-	43.8	46.9	-	38.0	46.9	34.8	61.2	63.3	59.0
7/4/2016	3:26:00 AM	51.6	52.5	50.7	40.5		42.7	38.9	41.8		44.8	-	44.5	47.7	-	38.5	44.5	34.6	62.1	65.4	58.2
7/4/2016	3:27:00 AM	51.6	53.3	50.8	41.2		45.8	38.3	41.4		44.1	-	44.3	48.3	-	39.5	42.2	37.4	61.5	66.2	58.9
7/4/2016	3:28:00 AM	51.6	52.8	50.8	39.6		41.4	37.8	41.3		43.8	-	41.8	46.0	-	39.9	43.6	37.5	61.5	65.6	59.0
7/4/2016	3:29:00 AM	51.6	52.6	50.8	39.7		41.3	37.9	41.5		46.9	-	44.7	49.0	-	38.9	45.8	36.0	61.8	63.9	59.2
7/4/2016	3:30:00 AM	51.6	53.1	50.5	41.6		44.3	39.6	40.8		43.8	-	45.4	49.4	-	39.5	45.2	36.5	61.3	63.5	58.6
7/4/2016	3:31:00 AM	51.6	52.5	50.7	41.6		43.3	39.8	41.6		43.4	-	44.1	48.9	-	39.0	42.8	36.6	61.4	63.7	59.1
7/4/2016	3:32:00 AM	51.5	52.3	50.7	41.0		42.7	38.1	41.6		45.2	-	43.7	50.2	-	39.0	44.0	36.4	61.7	63.5	59.8
7/4/2016	3:33:00 AM	51.5	52.2	50.7	40.0		41.7	37.9	41.4		43.3	-	43.5	47.6	-	41.3	55.1	36.6	61.7	64.5	58.7
7/4/2016	3:34:00 AM	51.5	52.4	50.5	40.8		42.9	39.2	41.7		45.4	-	43.7	47.6	-	39.0	44.3	36.2	62.2	65.2	59.4
7/4/2016	3:35:00 AM	51.7	52.6	50.8	40.1		42.9	38.2	40.2		42.3	-	44.0	48.1	-	38.9	45.1	35.8	61.8	64.7	59.4
7/4/2016	3:36:00 AM	51.9	52.8	51.0	41.0		43.0	38.9	40.7		42.6	-	46.1	53.5	-	39.2	43.5	36.4	60.9	62.6	58.3
7/4/2016	3:37:00 AM	51.7	53.6	50.6	44.0		47.0	41.4	41.6		44.1	-	43.9	47.4	-	40.2	47.5	36.6	62.2	64.9	59.2
7/4/2016	3:38:00 AM	51.7	52.6	50.9	45.7		48.6	43.2	41.4		44.8	-	46.2	50.6	-	38.0	44.4	35.8	61.3	63.7	58.4
7/4/2016	3:39:00 AM	51.8	52.9	51.1	47.8		49.9	44.8	40.6		46.5	-	46.1	50.6	-	38.1	48.1	35.6	61.4	63.7	57.0
7/4/2016	3:40:00 AM	51.7	52.6	51.0	47.3		49.9	45.6	40.3		42.4	-	44.3	49.5	-	38.5	45.0	35.5	60.9	63.2	58.8
7/4/2016	3:41:00 AM	51.7	52.7	50.8	46.6		49.5	44.3	40.2		45.1	-	46.1	50.9	-	38.2	40.6	36.1	61.1	64.0	58.3
7/4/2016	3:42:00 AM	51.8	52.7	50.6	47.2		50.3	45.1	41.6		45.4	-	46.0	50.9	-	38.1	44.6	35.8	61.6	64.2	59.7
7/4/2016	3:43:00 AM	51.5	52.3	50.6	45.6		48.3	43.8	39.8		41.5	-	44.7	48.1	-	39.2	42.6	35.6	61.1	64.3	58.6
7/4/2016	3:44:00 AM	51.5	52.4	50.7	43.2		45.7	40.9	39.7		42.5	-	46.1	49.3	-	39.7	51.6	34.9	61.2	64.2	58.2
7/4/2016	3:45:00 AM	51.7	52.4	51.0	44.6		46.3	43.1	41.5		43.9	-	48.0	56.9	-	38.4	43.7	35.4	61.4	64.7	57.7
7/4/2016	3:46:00 AM	51.8	52.9	50.9	47.1		49.5	44.3	40.7		44.4	-	48.3	55.4	-	38.3	45.6	35.0	61.6	63.8	58.8
7/4/2016	3:47:00 AM	51.7	52.5	50.9	47.2		50.3	44.8	41.0		44.0	-	45.9	50.1	-	37.9	47.3	34.9	61.0	63.6	59.2
7/4/2016	3:48:00 AM	45.2	54.9	31.9	47.1		49.7	44.8	40.6		43.3	-	49.1	55.7	-	38.4	42.1	35.1	61.9	67.1	59.0
7/4/2016	3:49:00 AM	33.0	37.9	30.9	47.4		50.2	45.5	40.8		45.6	-	46.0	50.5	-	38.9	42.8	36.1	60.6	64.4	58.1
7/4/2016	3:50:00 AM	33.0	37.5	31.1	46.9		48.7	43.9	41.2		44.1	-	45.4	49.4	-	38.8	44.2	36.1	61.6	65.6	57.3
7/4/2016	3:51:00 AM	33.1	37.8	31.2	43.1		46.5	39.6	40.9		42.3	-	48.6	58.9	-	38.8	42.9	35.4	60.8	66.3	57.5
7/4/2016	3:52:00 AM	32.8	38.2	31.3	39.3		41.0	37.4	40.9		43.7	-	41.9	48.1	-	40.1	45.7	37.5	61.1	63.6	59.2
7/4/2016	3:53:00 AM	34.1	38.2	32.2	39.6		41.3	38.0	41.2		44.8	-	45.2	52.7	-	46.4	58.1	38.1	61.5	65.1	59.0
7/4/2016	3:54:00 AM	32.5	36.8	30.4	39.6		41.8	38.1	40.9		48.2	-	44.0	48.4	-	39.6	47.3	37.1	60.6	63.6	56.9
7/4/2016	3:55:00 AM	31.5	37.0	29.8	39.9		41.2	38.4	41.8		46.3	-	44.5	49.4	-	40.1	50.7	36.9	61.2	64.6	58.8
7/4/2016	3:56:00 AM	31.6	36.5	29.6	39.0		41.5	37.0	42.5		47.6	-	45.1	51.5	-	39.6	47.6	36.8	61.5	64.7	58.4
7/4/2016	3:57:00 AM	31.3	36.5	29.5	40.9		42.4	39.1	41.4		56.9	-	46.3	50.6	-	38.9	43.1	35.6	61.5	64.3	59.2
7/4/2016	3:58:00 AM	34.4	51.1	30.1	40.5		43.3	38.1	42.6		47.0	-	44.5	49.8	-	40.3	45.9	37.3	61.6	64.7	59.1
7/4/2016	3:59:00 AM	37.9	50.8	29.6	41.0		43.3	39.2	42.1		45.5	-	43.7	47.3	-	40.3	45.1	37.0	61.3	63.8	58.8
7/4/2016	4:00:00 AM	33.7	45.3	29.3	39.6	41.4	41.5	37.5	42.3	42.6	44.5	-	44.1	48.0	-	39.4	53.2	36.5	61.0	63.2	58.6
7/4/2016	4:01:00 AM	34.0	41.5	30.9	39.2		42.8	37.5	41.8		43.1	-	44.7	49.6	-	36.8	39.8	35.0	61.6	64.5	59.4
7/4/2016	4:02:00 AM	32.0	38.1	29.6	38.8		40.2	37.4	41.8		44.2	-	46.3	54.1	-	37.7	41.5	34.8	62.0	64.7	60.2
7/4/2016	4:03:00 AM	30.5	35.6	28.4	39.4		41.7	37.2	41.9		43.7	-	44.3	47.9	-	38.9	43.2	35.8	61.8	64.4	59.8
7/4/2016	4:04:00 AM	31.9	37.8	28.9	41.3		43.5	39.1	41.8		44.0	-	44.0	47.9	-	38.3	44.5	35.0	61.1	63.2	59.5
7/4/2016	4:05:00 AM	33.4	48.3	29.5	42.7		45.6	40.7	42.1		44.1	-	45.1	49.6	-	39.5	48.2	36.0	60.6	64.9	57.1
7/4/2016	4:06:00 AM	33.5	37.8	29.5	40.9		42.2	39.6	42.1		44.3	-	45.5	51.4	-	37.7	42.9	35.5	61.7	65.3	59.7
7/4/2016	4:07:00 AM	34.0	38.4	31.5	40.5		42.2	39.0	42.4		45.2	-	43.8	48.9	-	37.5	42.9	34.8	62.2	65.5	59.4
7/4/2016	4:08:00 AM	33.1	38.5	30.3	42.1		44.0	40.1	42.3		44.3	-	45.6	51.4	-	39.0	46.8	35.6	60.5	63.7	56.9
7/4/2016	4:09:00 AM	31.9	40.6	29.1	42.4		43.9	40.9	43.5		46.9	-	44.2	50.6	-	37.7	41.4	34.4	61.0	64.4	58.4
7/4/2016	4:10:00 AM	38.9	48.5	30.0	42.7		44.2	40.9	43.0		47.9	-	45.2	48.6	-	37.3	44.1	34.2	62.3	66.4	59.3
7/4/2016	4:11:00 AM	33.6	39.9	29.5	41.3		43.5	39.7	43.4		47.2	-	43.4	55.0	-	40.9	51.2	36.1	62.1	65.8	59.7
7/4/2016	4:12:00 AM	33.6	36.9	30.6	41.4		43.1	40.0	43.1		47.8	-	42.6	49.8	-	39.6	44.0	36.6	62.3	64.6	60.5
7/4/2016	4:13:00 AM	34.5	38.1	31.6	41.4		43.8	39.9	42.2		44.9	-	46.9	54.9	-	39.4	42.6	36.9	61.9	65.6	59.6
7/4/2016	4:14:00 AM	33.7	37.1	31.3	41.0		42.9	39.0	42.2		44.6	-	46.2	51.5	-	39.7	47.0	37.0	61.4	64.3	58.3
7/4/2016	4:15:00 AM	32.7	37.4	29.8	40.4		42.2	39.0	42.7		47.1	-	46.1	49.7	-	38.2	41.7	35.5	61.6	64.1	58.8
7/4/2016	4:16:00 AM	37.8	48.9	31.8	41.1		42.8	39.2	43.2		47.1	-	47.5	53.5	-	38.7	42.6	35.6	60.2	62.4	58.4
7/4/2016	4:17:00 AM	35.3	39.4	33.0	40.8		43.9	38.3	42.6		48.1	-	47.1	49.9	-	38.5	43.0	35.5	62.1	66.1	59.6
7/4/2016	4:18:00 AM	36.5	43.3	33.1	41.5		43.8	38.6	41.6		44.9	-	46.0	51.7	-	38.5	42.4	36.0	62.5	64.9	60.7
7/4/2016	4:19:00 AM	41.1	46.4	35.1	40.3		42.0	38.6	42.2		45.8	-	44.6	50.7	-	39.1	43.5	35.7	61.5	64.3	59.3
7/4/2016	4:20:00 AM	43.6	48.3	38.5	40.2		44.5	38.5	42.3		46.2	-	47.5	51.2	-	38.2	44.3	34.9	61.3	64.8	58.6
7/4/2016	4:21:00 AM	42.5	47.7	37.9	42.3		58.0	38.9	41.1		45.6	-	46.6	53.1	-	39.5	43.1	36.6	60.8	64.4	57.8
7/4/2016	4:22:00 AM	38.0	40.0	36.3	47.6		60.7	39.4	41.3		44.5	-	45.3	48.8	-	38.6	41.7	36.2	61.2	63.3	58.6
7/4/2016	4:23:00 AM	35.4	38.7	32.5	41.4		44.7	39.1	41.0		45.0	-	46.2	50.2	-	38.1	40.6	35.7	61.4	63.3	59.3
7/4/2016	4:24:00 AM	32.4	39.6	29.3	40.7		43.0	38.7	42.1		46.0	-	46.3	50.8	-	39.1	41.5	36.9	61.6	65.8	58.6
7/4/2016	4:25:00 AM	33.6	44.5	29.1	39.5		40.9	38.4	41.2		45.4	-	46.7	51.3	-	38.4	41.2	36.5	62.1	66.0	59.6
7/4/2016	4:26:00 AM	39.0	52.5	28.7	41.1		43.6	38.9	43.2		48.0	-	46.2	49.8	-	37.3	43.0	35.4	61.1	63.0	57.9
7/4/2016	4:27:00 AM	37.5	51.1	29.5	41.7		43.7	40.2	42.5		46.2	-	45.1	49.3	-	37.5	42.3	35.1	61.4	63.9	58.8
7/4/2016	4:28:00 AM	32.8	38.5	29.3	44.0		48.9	39.8	41.0		45.3	-	45.1	51.3	-	37.8	41.8	35.6	61.8	64.7	59.4
7/4/2016	4:29:00 AM	33.6	41.2	28.2	40.2		44.3	38.4	41.6		45.6	-	46.7	52.2	-	37.7	40.2	35.3	61.3	66.4	59.3
7/4/2016	4:30:00 AM	31.3	40.2	27.6	40.1		41.7	38.7	42.3		46.6	-	46.7	50.5	-	39.4	43.1	35.7	61.6	65.0	59.5
7/4/2016	4:31:00 AM	29.8	39.2	27.6	41.7		47.3	38.9	43.1		47.4	-	47.8	52.4	-	38.9	43.0	37.1	61.5	64.7	59.7
7/4/2016	4:32:00 AM	36.1	46.4	27.7

7/4/2016	4:49:00 AM	46.7	52.1	38.9	39.8		42.1	38.5	41.7		46.0	-	47.6	50.6	-	38.8	42.2	37.0	61.5	64.1	59.6
7/4/2016	4:50:00 AM	42.8	48.4	35.6	39.7		41.4	38.1	42.6		47.6	-	46.7	51.1	-	38.1	41.6	35.6	60.7	63.7	58.5
7/4/2016	4:51:00 AM	40.8	48.5	28.9	39.4		42.8	38.1	42.6		46.5	-	46.1	49.9	-	39.6	46.8	37.3	62.6	65.9	60.0
7/4/2016	4:52:00 AM	36.1	46.8	27.7	39.1		40.8	37.4	44.2		51.0	-	45.5	58.8	-	38.1	41.4	35.1	61.8	63.7	59.4
7/4/2016	4:53:00 AM	30.6	36.0	27.5	39.6		41.1	38.1	43.4		51.7	-	45.4	48.7	-	38.2	45.3	35.0	61.3	64.0	58.9
7/4/2016	4:54:00 AM	29.3	36.3	27.5	39.5		41.4	37.9	41.9		47.1	-	47.8	52.1	-	39.2	43.8	36.4	61.0	63.6	59.2
7/4/2016	4:55:00 AM	42.6	53.6	27.3	40.1		43.6	38.2	42.1		45.6	-	46.1	50.8	-	39.1	44.6	36.6	62.2	65.4	60.0
7/4/2016	4:56:00 AM	36.0	40.1	32.9	41.5		43.7	39.4	42.5		46.3	-	47.4	51.2	-	39.5	44.6	36.8	62.6	64.7	60.7
7/4/2016	4:57:00 AM	36.4	39.6	33.7	40.4		43.1	38.2	42.6		46.8	-	45.9	50.5	-	39.2	45.1	36.2	61.8	64.2	59.4
7/4/2016	4:58:00 AM	37.3	40.4	34.2	39.8		41.9	38.1	42.5		47.1	-	47.0	53.0	-	39.1	45.4	36.2	61.9	65.1	59.9
7/4/2016	4:59:00 AM	37.7	42.0	32.1	39.9		42.7	38.5	42.7		47.6	-	45.2	49.7	-	38.3	41.3	36.1	61.1	64.2	59.5
7/4/2016	5:00:00 AM	38.8	44.0	32.6	40.4	43.0	42.6	38.2	43.3	45.6	47.2	-	46.6	52.8	-	39.4	42.8	36.4	60.9	64.6	58.6
7/4/2016	5:01:00 AM	36.8	41.7	32.2	40.6		43.3	39.4	43.1		47.4	-	59.5	73.5	-	39.3	54.0	36.0	61.9	64.9	59.7
7/4/2016	5:02:00 AM	36.7	43.4	33.3	41.2		43.2	39.6	44.4		48.6	-	47.0	51.3	-	38.2	44.3	35.4	61.5	63.5	58.9
7/4/2016	5:03:00 AM	37.0	42.4	33.1	40.7		42.7	38.5	44.0		47.8	-	48.6	52.8	-	38.2	41.8	35.8	61.5	64.5	59.5
7/4/2016	5:04:00 AM	39.3	52.1	34.9	40.1		41.7	38.4	42.5		46.9	-	48.0	52.6	-	39.7	45.2	37.5	61.6	66.9	58.8
7/4/2016	5:05:00 AM	38.1	48.4	33.4	40.2		42.0	38.4	42.5		46.2	-	47.7	50.9	-	38.9	42.7	36.2	61.2	63.6	58.6
7/4/2016	5:06:00 AM	39.2	48.5	30.3	40.3		43.2	38.5	44.0		47.3	-	48.7	52.2	-	38.4	48.9	35.7	61.7	65.2	59.0
7/4/2016	5:07:00 AM	33.8	48.7	28.2	39.5		42.0	38.0	42.9		47.2	-	48.1	53.6	-	39.7	44.5	36.3	61.2	65.4	59.1
7/4/2016	5:08:00 AM	33.6	41.5	28.6	41.9		46.6	38.6	43.4		47.1	-	48.1	52.7	-	41.4	47.2	38.9	62.4	69.7	59.4
7/4/2016	5:09:00 AM	34.0	46.7	30.9	41.3		43.9	39.2	43.3		47.3	-	48.8	53.5	-	41.1	44.8	38.4	63.8	70.8	60.5
7/4/2016	5:10:00 AM	35.5	49.8	31.8	40.4		42.4	39.1	43.4		46.6	-	46.7	51.8	-	39.0	41.8	36.8	63.0	68.3	60.5
7/4/2016	5:11:00 AM	35.0	49.0	31.8	40.7		43.0	39.3	43.5		46.5	-	50.6	55.3	-	38.6	43.3	37.1	61.2	64.2	58.2
7/4/2016	5:12:00 AM	42.6	53.1	33.4	40.8		43.8	39.1	44.1		48.4	-	49.1	53.7	-	38.8	42.2	36.6	62.2	65.3	60.2
7/4/2016	5:13:00 AM	38.2	47.5	33.3	41.2		43.0	39.6	45.0		48.1	-	47.9	51.6	-	40.0	44.8	37.0	61.7	64.0	58.8
7/4/2016	5:14:00 AM	44.1	53.5	35.3	40.7		42.9	39.3	43.7		47.3	-	47.4	51.7	-	40.3	44.6	37.9	61.0	63.1	58.5
7/4/2016	5:15:00 AM	40.8	47.6	34.8	40.6		42.3	39.2	44.3		48.6	-	47.5	50.9	-	39.3	41.5	37.1	62.2	64.6	59.6
7/4/2016	5:16:00 AM	42.0	51.6	34.9	40.5		44.1	39.0	44.0		46.5	-	49.0	54.7	-	39.8	42.9	37.4	62.8	76.1	59.8
7/4/2016	5:17:00 AM	41.9	49.2	37.0	47.4		65.4	39.9	44.0		47.5	-	49.0	53.0	-	40.9	45.3	38.4	63.0	67.6	59.9
7/4/2016	5:18:00 AM	43.0	52.7	36.5	47.9		58.6	40.1	45.8		49.8	-	48.9	51.8	-	40.7	45.1	38.7	63.1	65.0	60.9
7/4/2016	5:19:00 AM	40.0	49.5	34.9	46.3		57.5	39.9	44.0		48.1	-	48.8	52.6	-	39.4	43.4	37.1	62.5	64.7	60.7
7/4/2016	5:20:00 AM	37.9	41.9	33.8	45.7		57.0	41.1	44.6		49.2	-	50.9	55.7	-	39.7	43.8	37.4	63.6	67.6	60.4
7/4/2016	5:21:00 AM	41.9	49.4	34.6	50.3		62.6	41.2	44.1		51.0	-	48.3	53.7	-	40.2	49.5	37.7	63.2	68.5	60.2
7/4/2016	5:22:00 AM	37.6	48.6	33.5	49.0		57.9	41.2	42.9		45.8	-	52.1	63.1	-	41.8	49.6	37.5	61.8	64.0	59.8
7/4/2016	5:23:00 AM	36.4	43.8	32.7	43.0		44.7	41.4	43.6		46.1	-	49.4	54.7	-	40.7	44.5	39.0	62.8	65.9	59.8
7/4/2016	5:24:00 AM	39.8	56.9	33.7	43.0		47.9	41.3	42.9		46.7	-	49.4	55.0	-	40.4	51.3	37.9	62.1	64.7	59.1
7/4/2016	5:25:00 AM	37.4	51.6	32.1	42.2		43.8	41.0	44.3		47.0	-	51.7	56.0	-	40.9	44.7	38.7	62.9	65.7	60.8
7/4/2016	5:26:00 AM	39.9	50.7	32.5	42.4		43.9	41.0	44.4		50.5	-	49.8	54.5	-	41.6	44.7	39.1	62.6	64.5	61.1
7/4/2016	5:27:00 AM	42.4	53.5	33.3	41.9		46.4	40.2	45.6		57.8	-	49.8	54.8	-	41.9	46.6	39.5	62.3	64.6	60.1
7/4/2016	5:28:00 AM	48.4	59.4	32.2	41.7		44.2	40.4	45.2		52.7	-	50.9	55.2	-	41.8	48.6	38.6	64.0	73.4	60.1
7/4/2016	5:29:00 AM	36.6	43.4	31.1	41.5		43.9	39.9	45.5		53.9	-	50.7	54.4	-	50.8	69.6	39.3	62.0	64.5	59.7
7/4/2016	5:30:00 AM	40.1	48.4	35.0	41.4		42.8	40.1	45.6		52.4	-	52.2	57.4	-	41.2	44.0	39.1	62.3	71.1	60.3
7/4/2016	5:31:00 AM	38.8	48.2	35.6	41.6		43.5	40.1	45.2		52.1	-	52.3	57.1	-	41.3	43.2	39.1	64.0	75.6	59.9
7/4/2016	5:32:00 AM	44.9	57.1	36.0	41.5		43.3	39.8	45.0		48.5	-	53.4	58.4	-	41.5	45.1	38.7	62.4	65.7	59.4
7/4/2016	5:33:00 AM	43.6	55.4	35.3	41.1		42.9	39.7	44.3		53.4	-	52.2	56.3	-	41.1	46.2	38.3	63.3	67.5	59.1
7/4/2016	5:34:00 AM	50.1	62.4	36.4	41.3		42.9	39.6	45.8		49.4	-	51.2	54.7	-	43.4	51.9	39.4	64.1	70.3	60.7
7/4/2016	5:35:00 AM	41.8	59.6	33.1	41.4		43.1	40.1	47.6		56.9	-	51.8	55.5	-	45.5	56.5	41.2	62.2	65.0	59.0
7/4/2016	5:36:00 AM	42.2	61.1	32.3	41.8		44.0	40.0	52.5		60.8	-	53.0	57.1	-	43.7	51.2	40.8	62.3	65.8	60.5
7/4/2016	5:37:00 AM	37.6	50.9	33.3	41.9		43.7	40.0	51.5		57.8	-	53.0	57.6	-	41.8	48.3	40.1	62.3	64.8	59.8
7/4/2016	5:38:00 AM	51.5	70.2	33.5	42.0		43.4	40.1	45.1		52.5	-	53.0	60.9	-	51.0	65.3	40.8	62.4	65.3	59.0
7/4/2016	5:39:00 AM	40.5	53.2	34.0	43.1		45.8	40.8	44.9		52.2	-	50.4	54.0	-	43.3	47.6	40.8	63.4	66.6	60.6
7/4/2016	5:40:00 AM	41.1	51.7	34.6	43.1		54.7	40.6	45.9		53.3	-	51.2	55.6	-	43.1	47.6	41.1	62.6	66.1	59.7
7/4/2016	5:41:00 AM	39.6	55.7	34.2	40.8		42.3	39.4	45.8		51.8	-	50.8	55.8	-	42.5	46.3	40.2	62.8	65.5	60.2
7/4/2016	5:42:00 AM	38.3	49.3	33.9	41.8		44.1	39.2	46.8		55.6	-	52.8	56.2	-	41.7	43.7	39.3	62.7	65.3	59.9
7/4/2016	5:43:00 AM	40.2	53.3	34.3	43.1		45.1	41.5	45.0		50.5	-	53.9	59.2	-	42.0	48.5	39.4	61.9	65.6	58.9
7/4/2016	5:44:00 AM	37.3	45.5	33.8	43.4		46.0	40.8	47.0		51.8	-	52.6	58.8	-	42.6	45.4	40.6	62.4	65.3	60.0
7/4/2016	5:45:00 AM	37.1	47.3	32.9	42.8		44.9	40.2	46.6		50.9	-	52.4	61.6	-	44.1	47.2	40.4	61.4	64.7	59.0
7/4/2016	5:46:00 AM	38.2	56.8	32.7	41.5		43.4	40.0	45.1		52.2	-	52.9	56.7	-	44.1	49.2	41.5	61.0	64.8	59.0
7/4/2016	5:47:00 AM	36.9	45.1	32.1	42.0		45.1	39.8	46.3		53.4	-	53.2	60.3	-	44.3	53.2	41.4	62.5	65.6	59.2
7/4/2016	5:48:00 AM	45.3	61.9	36.1	43.3		47.0	40.8	46.5		51.7	-	51.8	57.3	-	42.5	45.0	40.4	63.2	65.4	60.3
7/4/2016	5:49:00 AM	42.2	51.9	33.8	43.3		52.4	40.7	47.0		53.2	-	51.8	57.5	-	43.0	47.1	41.1	62.7	66.7	60.0
7/4/2016	5:50:00 AM	36.2	49.7	31.3	42.7		49.2	40.7	47.0		56.4	-	52.9	57.9	-	43.1	46.5	41.2	62.0	65.9	59.1
7/4/2016	5:51:00 AM	40.8	56.6	31.3	41.4		43.1	39.9	45.0		51.0	-	54.6	61.5	-	43.4	47.6	41.4	62.2	64.4	60.1
7/4/2016	5:52:00 AM	41.0	48.8	29.6	41.6		43.3	40.1	46.2		55.7	-	52.4	57.8	-	42.4	46.0	39.9	62.8	66.2	59.8
7/4/2016	5:53:00 AM	32.5	40.9	28.6	41.7		45.0	40.0	47.3		55.6	-	52.0	57.9	-	43.1	51.8	39.9	62.5	65.4	60.4
7/4/2016	5:54:00 AM	37.0	44.0	32.2	42.3		44.0	40.8	44.6		53.2	-	51.4	56.3	-	44.5	51.7	41.2	61.6	63.9	59.1
7/4/2016	5:55:00 AM	34.0	43.3	29.3	42.2		47.1	40.5	45.5		50.5	-	51.6	57.7	-	42.8	46.4	40.0	63.5	67.6	60.5
7/4/2016	5:56:00 AM	50.1	67.8	32.6	41.3		43.6	39.6	45.6		49.6	-	51.6	56.5	-	43.2	46.4	41.1	63.4	70.0	59.5
7/4/2016	5:57:00 AM	44.2	58.8	29.6	41.2		43.3	38.9	46.5		60.6	-	51.4	59.2	-	46.8	67.2	41.0	62.9	69.0	60.6
7/4/2016	5:58:00 AM	37.4	46.5	29.6	41.7		43.3	40.5	46.0		49.9	-	51.0	59.6	-	43.4	51.5	40.6	63.0	65.7	60.0
7/4/2016	5:59:00 AM	46.8	60.5	31.6	42.5		44.5	41.0	45.8		55.3	-	54.2	60.9	-	43.7	50.9	41.7	62.8	66.3	60.1
7/4/2016	6:00:00 AM	46.6	57.1	32.3	43.2	58.2	45.4	41.3	45.6	48.6	51.2	-	54.8	60.5	-	43.4	50.3	40.2	62.7	68.6	60.2
7/4/2016	6:01:00 AM	47.1	63.5	42.7	44.7		48.3	41.9	46.5		54.4	-	54.8	62.6	-	41.8	45.2	39.7	62.3	66.0	60.0
7/4/2016	6:02:00 AM	47.0	61.3	42.4	43.9		46.5	41.2	46.3		56.6	-	54.5	60.9	-	43.0	50.8	40.2	62.5	66.5	60.7
7/4/2016	6:03:00 AM	46.6	58.4	38.0	42.1		44.4	40.4	45.7		49.2	-	51.5	56.0	-	42.5	45.9	40.7	62.6	64.8	59.7
7/4/2016	6:04:00 AM	43.0	51.3	37.2	42.9		45.0	41.2	46.3		54.6	-	52.7	57.5	-	43.3	47.0	40.9	62.8	65.4	59.5
7/4/2016	6:05:00 AM	41.4	51.9	35.6	44.1		54.0	41.2	46.8		55.5	-	51.4	55.9	-	42.4	51.4	40.6	63.1	65.7	60.4
7/4/2016	6:06:00 AM	38.8	46.6	34.0	43.4		52.8	39.9	46.0		54.0	-	52.3	59.2	-	43.7	53.0	40.2	62.9	67.5	60.4
7/4/2016	6:07:00 AM	49.8	59.2	35.3	42.9		50.2	40.7	45.3		53.4	-	53.6	58.4	-	44.7	56.3	40.6	62.3	65.9	59.6
7/4/2016	6:08:00 AM	53.5	54.3	52.7	46.1		57.2	41.5	45.6		50.5	-	53.9	63.7	-	43.5	49.3	41.6	62.6	65.2	60.3
7/4/2016	6:09:00 AM	54.0	55.5	52.8	45.4		56.3	41.5	46.6		58.7	-	54.6	70.4	-	43.8	50.1	41.5	62.7	65.9	60.0
7/4/2016	6:10:00 AM	55.1	56.4	54.0	49.0		57.0	41.8	47.7		53.3	-	51.4	56.7	-	45.0	51.8	42.0	62.6	65.1	60.0
7/4/2016	6:11:00 AM	55.1	56.3	53.0	42.0		45.7	40.4	46.2		52.3	-	50.2	56.2	-	45.0	50.5	41.7	62.9	66.9	60.6
7/4/2016	6:12:00 AM	54.4	57.0	52.5	42.5		48.3	40.4	46.0		51.1	-	54.5	59.1	-	43.7	47.9	41.7	62.7	65.8	60.1
7/4/2016	6:13:00 AM	53.3	55.3	52.0	41.6		43.8	40.0	47.4		53.4	-	51.8	58.6	-	44.4	55.0	41.6	63.3	66.4	60.4
7/4/2016	6:14:00 AM	53.4	57.2	51.7	42.8		45.1	40.8	47.0		53.6	-	58.8	74.7	-	44.3	48.7	42.1	63.2	66.1	59.8
7/4/2016	6:15:00 AM	52.9	54.2	51.9	43.3		45.3	41.5	48.3		52.8	-	53.6	57.5	-	45.2	57.4	42.1	62.9	68.0	60.2
7/4/2016	6:16:00 AM	52.8	56.9	51.7	44.7		47.1	42.4	45.5		52.1	-	52.5	57.9	-	43.5	49.2	41.5	63.4	67.1	60.7
7/4/2016	6:17:00 AM	52.6	53.8	51.3	43.0		50.0	41.1	44.8		50.6	-	53.0	56.9	-	43.4	47.3	40.9	63.5	67.5	60.4
7/4/2016	6:18:00 AM	53.4	55.1	52.3	42.4		50.9	40.1	47.1		52.7	-	53.2	57.5	-	43.9	46.9	41.8	63.4	65.9	61.0
7/4/2016	6:19:00 AM	53.2	56.3	52.1	42.1		44.3	40.4	47.9		59.1	-	53.0	59.5	-	43.9	48.2	41.8	62.9	65.2	60.4
7/4/2016	6:20:00 AM	54.3	62.5	51.7	43.8		45.9	42.0	47.9		58.9	-	52.4	61.3	-	46.0	62.6	41.7	62.4	65.4	59.6
7/4/2016	6:21:00 AM	52.1	53.4	51.1	44.4		46.0	42.7	47.2		53.8	-	51.3	57.1	-	44.2	47.8	41.2	63.1	66.0	60.7
7/4/2016	6:22:00 AM	52.4	54.4	51.2	47.5		50.1	45.0	47.4		58.2	-	52.5	57.7	-	43.7	48.7	40.8	63.4	67.4	60.6
7/4/2016	6:23:00 AM	52.5	56.7	51.6	47.7		50.4	44.7	46.5		56.2	-	51.9	56.9	-	44.3	52.8	41.8	64.0	68.2	60.6
7/4/2016	6:24:00 AM	52.6	58.4	51.6	48.0		49.9	46.1	47.0		55.2	-	51.6	55.4	-	43.3	48.5	41.4	63.3	70.2	60.3
7/4/2016	6:25:00 AM	52.2	54.0	51.3	47.7		49.5	46.2	47.1		54.4	-	51.2	56.2	-	43.8	47.6	41.7	63.9	69.9	61.0
7/4/2016	6:26:00 AM	52.3	57.3	51.3	48.2		50.1	46.4	49.3		54.8	-	50.5	54.2	-	43.9	47.5	41.3	63.0	66.4	60.4
7/4/2016	6:27:00 AM	52.8	60.5	51.2	50.1		53.6	48.1	49.2		53.2	-	55.0	63.9	-	44.2	52.5	41.3	63.0	65.8	60.1
7/4/2016	6:28:00 AM	52.4	56.3	51.4	51.3		53.7	48.7	48.3		56.1	-	51.5	57.8	-	43.4	51.5	41.1	63.4	66.7	60.7
7/4/2016	6:29:00 AM	52.4	53.8	51.4	52.1		57.1	49.1	50.7		61.8	-	51.3	56.6	-	42.6	47.9	40.9	63.2	66.7	60.6
7/4/2016	6:30:00 AM	53.1	62.4	51.6	60.3		69.4	50.9	49.1		65.1	-	51.8	57.5	-	43.2	49.5	40.7	62.5	66.8	59.6
7/4/2016	6:31:00 AM	52.7	56.3	51.5	64.9		77.1	52.7	49.8		60.1	-	51.6	54.6	-	43.7	51.7	41.0	63.4	66.4	61.4
7/4/2016	6:32:00 AM	53.1	58.8	51.7	61.9		77.8	50.0	47.5		56.7	-	51.8	56.0	-	43.3	48.5	40.4	64.1	67.8	60.7
7/4/2016	6:33:00 AM	53.1	56.3	51.6	63.3		73.6	49.3	49.8		59.3	-	50.6	54.5	-	43.1	46.1	41.3	63.1	67.9	60.6
7/4/2016	6:34:00 AM	52.7	57.3	51.5	59.8		67.3	50.8	49.7		59.1	-	51.1	57.1	-	43.8	49.5	41.1	63.8	67.9	61.0
7/4/2016	6:35:00 AM	53.1	56.4	51.4	63.2		71.6	48.9	47.7		56.3	-	51.5	55.1	-	45.2	53.8	40.7	64.5	67.7	61.8
7/4/2016	6:36:00 AM	54.0	60.1	51.5	60.3		69.2	50.6	50.2		60.0	-	50.0	55.9	-	44.8	51.4	41.8	63.5	67.9	61.2
7/4/2016	6:37:00 AM	56.1	66.6	51.6	56.2		62.9	51.1	48.1		58.2	-	52.2	57.7	-	46.5	55.4	41.6	64.3	68.6	61.1
7/4/2016	6:38:00 AM	53.0	57.2	51.6	58.2		70.3	51.4	49.9		54.5	-	53.6	60.1	-	51.2	72.1	42.6	63.3	67.3	60.5
7/4/2016	6:39:00 AM	52.9	55.8	51.5	61.4		71.6	49.5	50.4		55.7	-	72.3	80.7	-	48.0	53.8	42.4	63.8	67.2	60.3
7/4/2016	6:40:00 AM	52.3	53.3	51.5	61.8		74.0	51.4	52.7		61.3	-	52.2	54.8	-	44.6	50.2	41.8	63.2	67.1	60.9
7/4/2016	6:41:00 AM	53.0	56.7	51.4	65.2		73.5	50.2	50.5		57.2	-	51.7	55.2	-	47.5	57.8	43.2	63.8	67.4	61.1
7/4/2016	6:42:00 AM	52.9	58.2	51.4	61.8		70.8	47.5	47.9		55.7	-	50.7	53.9	-	44.9	52.8	42.2	64.0	68.0	61.4
7/4/2016	6:43:00 AM	53.3	61.7	51.5	62.7		71.9	46.2	47.4		54.7	-	51.4	55.3	-	43.8	50.1	40.8	63.0	65.7	60.7
7/4/2016	6:44:00 AM	52.9	57.3	51.2	54.0		61.5	44.5	47.7		53.1	-	50.9	54.0	-	42.1	45.9	40.4	63.9	68.2	61.3
7/4/2016	6:45:00 AM	54.6	61.8	51.5	66.8		77.6	44.2	50.5		66.1	-	52.8	63.5	-	45.6	54.0	42.3	63.9	67.9	61.6
7/4/2016	6:46:00 AM	52.0	53.3	51.0	54.1		63.3	46.1	49.2		58.5	-	51.6	57.3	-	44.9	47.3	42.2	63.1	67.4	60.7
7/4/2016	6:47:00 AM	53.2	59.4	50.9	46.8		53.0	44.5	47.8		61.3	-	51.0	56.7	-	45.7	51.4	41.4	64.2	69.8	61.2
7/4/2016	6:48:00 AM	52.8	56.1	51.3	48.2		53.7	46.1	50.4		61.0	-	50.4	56.5	-	43.0	53.1	40.6	64.0	66.7	61.4
7/4/2016	6:49:00 AM	52.2	54.5	51.0	62.0		73.4	45.3	49.2		62.1	-	52.9	57.5	-	45.2	50.5	41.0	63.5	66.9	61.4
7/4/2016	6:50:00 AM	51.8	52.9	50.9	58.4		69.8	46.1	50.0		61.6	-	51.8	57.6	-	43.6	52.7	41.7	64.2	68.6	61.0
7/4/2016	6:51:00 AM	53.0	56.7	51.2	63.5		71.7	44.7	48.7		54.3	-	51.9	57.9	-	46.6	56.8	41.7	64.2	67.2	61.8
7/4/2016	6:52:00 AM	52.8	65.4	50.8	62.2		72.9	46.9	47.2		55.1	-	51.5	58.2	-	44.6	53.0	41.8	64.3	66.8	62.0
7/4/2016	6:53:00 AM	52.6	55.7	51.2	55.5		62.7	43.5	47.8		54.3	-	50.5	55.0	-	53.1	70.2	41.8	64.5	68.2	61.6
7/4/2016	6:54:00 AM	52.7	56.1	51.1	61.3		73.6	42.8	50.5		60.5	-	50.4	54.2	-	44.4	48.3	41.1	63.5	67.0	60.8
7/4/2016	6:55:00 AM	52.8	67.5	50.9	56.5		64.1	47.1	47.8		51.4	-	52.3	55.9	-	42.8	44.9	40.6	63.6	68.4	60.3
7/4/2016	6:56:00 AM	52.5	57.1	50.9	46.8		56.2	42.6	48.4		53.2	-	50.3	54.6	-	44.7	49.8	41.8	64.2	67.7	61.3
7/4/2016	6:57:00 AM	51.8	55.5	50.7	61.0		71.5	41.0	55.8		64.0	-	50.4	54.1	-	46.0	51.8	42.1	64.1	67.2	60.8
7/4/2016	6:58:00 AM	51.9	54.4	51.0

7/4/2016	7:15:00 AM	52.0	53.2	51.1	64.6		73.1	50.0	48.1		52.0	-	50.7	64.6	-	42.9	46.7	41.0	64.2	66.5	61.2
7/4/2016	7:16:00 AM	53.2	66.9	51.1	50.7		62.2	42.9	48.0		63.1	-	55.8	69.3	-	42.8	47.3	40.8	65.5	73.4	62.1
7/4/2016	7:17:00 AM	52.9	56.8	51.6	44.3		46.9	42.0	48.1		56.4	-	53.7	63.3	-	43.1	49.2	41.2	65.2	69.0	62.3
7/4/2016	7:18:00 AM	52.4	55.3	51.2	44.2		46.7	42.6	48.1		53.2	-	55.2	65.4	-	45.8	57.5	40.8	64.4	68.7	61.4
7/4/2016	7:19:00 AM	53.1	57.6	51.3	59.3		68.3	44.4	48.0		57.4	-	53.2	64.4	-	44.3	47.7	42.1	64.8	69.8	61.7
7/4/2016	7:20:00 AM	53.5	66.2	52.0	50.3		55.8	45.9	47.8		52.3	-	51.6	57.9	-	43.8	48.0	41.6	64.2	68.2	61.2
7/4/2016	7:21:00 AM	53.6	57.8	51.5	46.7		49.7	43.7	50.0		60.0	-	51.4	57.4	-	46.0	50.8	42.1	65.3	77.8	59.3
7/4/2016	7:22:00 AM	52.5	55.8	51.3	60.9		71.4	45.7	52.1		60.8	-	51.7	60.2	-	44.9	55.0	41.5	64.5	69.1	61.1
7/4/2016	7:23:00 AM	52.6	56.5	51.5	49.9		57.2	43.4	48.1		54.0	-	52.9	59.2	-	44.3	53.5	41.5	65.0	68.5	62.1
7/4/2016	7:24:00 AM	52.7	55.3	51.3	46.4		55.6	42.4	49.5		58.8	-	51.8	59.3	-	49.5	59.2	41.2	65.3	69.2	62.7
7/4/2016	7:25:00 AM	52.1	56.4	51.1	48.7		61.1	43.5	51.8		59.1	-	56.3	66.5	-	43.3	47.9	40.9	65.1	67.7	61.8
7/4/2016	7:26:00 AM	51.7	52.8	50.8	46.9		56.4	42.9	49.7		56.2	-	53.6	62.2	-	42.7	48.1	41.1	65.3	73.1	61.6
7/4/2016	7:27:00 AM	52.7	57.2	51.0	49.9		59.4	44.4	50.8		61.9	-	52.2	59.2	-	43.5	48.8	41.0	65.1	69.0	62.5
7/4/2016	7:28:00 AM	52.1	54.7	51.1	47.7		51.7	44.6	48.2		57.1	-	53.2	58.8	-	45.9	51.2	41.8	64.3	68.4	60.4
7/4/2016	7:29:00 AM	52.0	53.8	51.1	65.0		75.0	44.2	48.1		54.6	-	52.6	58.5	-	43.0	57.8	40.8	66.1	71.0	63.3
7/4/2016	7:30:00 AM	52.1	54.0	51.1	56.4		64.2	45.7	48.9		53.0	-	52.9	59.1	-	42.5	47.1	40.2	65.3	69.8	62.8
7/4/2016	7:31:00 AM	53.2	59.6	51.2	44.8		48.9	42.4	50.6		64.1	-	54.3	59.9	-	43.7	55.0	41.1	65.2	71.3	62.6
7/4/2016	7:32:00 AM	52.3	58.8	51.1	57.4		66.1	43.8	55.5		65.8	-	53.1	59.1	-	43.0	46.4	41.0	65.0	67.2	63.1
7/4/2016	7:33:00 AM	55.3	72.1	50.9	47.6		55.7	41.3	48.6		60.7	-	54.3	69.3	-	43.0	49.4	41.5	64.8	68.5	61.2
7/4/2016	7:34:00 AM	52.3	59.0	51.4	64.1		75.2	41.2	49.5		54.6	-	53.6	59.4	-	43.4	50.7	41.1	64.9	69.0	61.9
7/4/2016	7:35:00 AM	53.8	61.5	51.4	56.9		66.8	43.7	47.1		52.2	-	54.5	59.9	-	45.7	50.1	41.0	65.5	69.2	62.5
7/4/2016	7:36:00 AM	54.6	59.1	53.2	44.6		49.4	42.1	48.0		51.9	-	53.6	63.4	-	43.6	53.4	40.7	64.9	68.6	62.3
7/4/2016	7:37:00 AM	53.6	55.0	52.6	43.8		47.2	42.0	51.0		57.2	-	51.5	59.5	-	44.1	47.5	42.4	65.7	70.0	62.3
7/4/2016	7:38:00 AM	52.7	56.2	51.3	43.2		45.2	41.4	46.8		52.6	-	51.2	55.9	-	44.6	48.6	42.8	65.1	70.9	60.4
7/4/2016	7:39:00 AM	52.3	53.3	51.5	44.6		48.9	42.2	50.0		61.4	-	51.3	56.2	-	44.2	51.3	41.6	64.9	68.7	60.2
7/4/2016	7:40:00 AM	52.3	54.2	51.4	45.6		49.2	43.0	47.4		57.5	-	51.3	55.6	-	45.8	58.0	41.8	65.1	68.9	62.7
7/4/2016	7:41:00 AM	53.4	56.5	51.8	66.1		75.6	44.0	46.0		52.9	-	51.4	54.9	-	44.0	49.4	42.0	64.8	68.5	61.4
7/4/2016	7:42:00 AM	52.6	54.3	51.6	63.5		74.5	47.1	49.1		53.2	-	49.6	56.1	-	45.0	53.7	42.0	65.5	70.1	61.5
7/4/2016	7:43:00 AM	53.2	58.5	51.6	61.5		71.1	45.8	46.7		54.3	-	49.7	53.0	-	43.9	54.6	41.4	65.0	69.0	62.8
7/4/2016	7:44:00 AM	52.4	56.5	51.1	48.6		59.3	42.3	47.0		53.5	-	51.1	56.4	-	43.0	54.9	40.8	65.8	69.6	61.2
7/4/2016	7:45:00 AM	52.4	57.7	50.7	45.5		52.8	42.8	51.8		68.4	-	52.9	61.1	-	43.8	53.8	41.2	65.4	70.8	61.4
7/4/2016	7:46:00 AM	51.8	53.5	50.8	44.6		51.3	42.3	50.0		69.8	-	50.4	55.8	-	43.5	49.1	41.5	65.7	69.4	62.9
7/4/2016	7:47:00 AM	52.9	58.7	50.7	45.0		57.4	42.9	53.3		70.4	-	50.9	57.2	-	46.7	51.2	42.6	65.6	69.8	62.0
7/4/2016	7:48:00 AM	52.7	58.0	51.3	47.8		53.8	42.9	53.0		73.6	-	52.4	58.2	-	45.9	50.6	43.1	65.5	70.8	62.3
7/4/2016	7:49:00 AM	53.2	59.1	51.4	61.8		76.1	42.7	51.6		60.6	-	53.0	59.9	-	47.5	51.5	44.3	65.5	72.2	61.5
7/4/2016	7:50:00 AM	53.0	60.8	51.5	63.8		72.8	47.3	47.4		57.5	-	50.1	57.4	-	45.1	53.1	42.7	66.6	70.1	63.8
7/4/2016	7:51:00 AM	54.0	61.4	51.8	51.0		63.3	45.0	49.9		55.8	-	49.4	54.6	-	44.9	48.2	42.7	65.8	70.7	62.3
7/4/2016	7:52:00 AM	55.3	61.9	52.3	67.6		79.2	46.9	50.0		57.7	-	50.3	54.3	-	44.2	48.8	42.4	65.8	69.9	62.9
7/4/2016	7:53:00 AM	53.7	62.1	51.7	67.4		77.3	44.7	57.3		70.4	-	50.1	53.5	-	44.1	47.9	43.0	65.3	70.6	60.5
7/4/2016	7:54:00 AM	52.8	56.1	51.5	59.0		70.4	49.1	48.9		56.8	-	50.6	55.3	-	44.0	46.7	42.2	65.5	68.9	61.7
7/4/2016	7:55:00 AM	66.9	75.2	51.7	45.5		53.9	43.0	48.4		54.2	-	50.4	53.9	-	44.4	50.6	42.1	65.9	70.9	63.5
7/4/2016	7:56:00 AM	59.7	72.5	51.5	47.2		57.9	43.2	50.7		65.6	-	50.1	53.1	-	45.0	47.3	43.2	65.9	69.2	62.4
7/4/2016	7:57:00 AM	54.3	62.8	51.6	47.7		58.0	43.7	58.0		70.2	-	49.3	53.5	-	44.3	46.7	42.4	65.7	73.3	61.7
7/4/2016	7:58:00 AM	52.4	54.4	51.5	50.9		62.4	42.9	62.3		73.4	-	50.5	59.2	-	46.2	51.0	42.6	65.8	69.9	62.1
7/4/2016	7:59:00 AM	52.4	58.9	51.6	46.7		50.5	44.1	54.1		70.6	-	52.2	60.4	-	47.0	53.0	42.9	65.4	69.5	61.7
7/4/2016	8:00:00 AM	52.4	53.5	51.5	52.1	56.4	65.5	44.5	53.4	66.7	71.4	-	49.4	53.8	-	45.1	60.5	42.9	65.7	71.1	60.2
7/4/2016	8:01:00 AM	52.4	54.1	51.5	61.2		71.4	43.8	56.3		75.6	-	50.6	60.0	-	45.8	57.1	41.9	65.7	70.8	60.3
7/4/2016	8:02:00 AM	52.1	54.2	51.0	54.5		64.1	45.8	50.1		62.1	-	50.1	54.8	-	47.2	57.5	42.3	65.5	69.7	62.5
7/4/2016	8:03:00 AM	53.2	60.0	51.3	47.2		52.1	44.4	50.9		67.8	-	50.4	57.6	-	43.9	52.2	41.6	65.8	69.3	62.2
7/4/2016	8:04:00 AM	51.9	53.3	50.8	46.6		50.9	44.0	55.7		74.0	-	50.4	58.1	-	43.2	45.8	41.4	65.4	72.6	62.8
7/4/2016	8:05:00 AM	51.7	53.3	50.9	62.5		70.9	45.4	59.8		78.3	-	50.0	56.0	-	45.9	54.7	42.7	65.0	68.2	62.1
7/4/2016	8:06:00 AM	53.4	63.6	51.1	52.6		63.5	46.4	64.6		79.9	-	51.2	57.8	-	43.9	54.0	41.9	65.7	72.8	62.2
7/4/2016	8:07:00 AM	54.6	63.9	51.1	51.1		56.8	46.9	65.8		74.8	-	52.0	58.5	-	45.7	50.2	43.0	65.6	70.1	62.8
7/4/2016	8:08:00 AM	52.8	58.1	51.1	50.8		59.5	46.7	67.4		79.4	-	52.0	59.4	-	44.2	48.0	42.6	66.2	70.0	63.1
7/4/2016	8:09:00 AM	52.4	54.7	51.0	51.8		58.4	46.7	63.2		73.5	-	50.5	60.8	-	44.5	48.7	42.2	65.5	70.8	60.9
7/4/2016	8:10:00 AM	52.4	57.6	50.9	60.8		70.4	50.5	64.9		76.6	-	50.0	57.3	-	44.5	53.4	41.6	66.1	71.2	62.8
7/4/2016	8:11:00 AM	52.4	56.9	51.0	57.4		65.6	47.6	64.8		71.5	-	51.1	58.3	-	46.2	51.1	42.7	66.7	71.5	64.3
7/4/2016	8:12:00 AM	54.0	66.7	52.0	50.9		54.5	48.5	65.5		80.9	-	54.8	70.5	-	44.1	48.3	41.7	66.0	70.4	59.6
7/4/2016	8:13:00 AM	53.5	61.0	51.5	52.3		56.2	48.6	64.9		72.6	-	49.9	59.7	-	44.4	49.3	42.1	65.1	70.3	61.1
7/4/2016	8:14:00 AM	52.8	60.7	51.5	60.0		70.8	51.0	64.6		71.6	-	49.5	59.7	-	44.2	48.4	41.8	65.4	69.9	62.4
7/4/2016	8:15:00 AM	51.8	53.8	51.1	63.3		75.1	49.8	64.7		71.9	-	50.2	57.4	-	45.0	49.6	41.9	65.7	70.4	62.1
7/4/2016	8:16:00 AM	52.3	54.6	51.1	53.0		59.3	48.5	65.2		78.3	-	52.0	58.8	-	46.3	54.4	42.8	65.7	69.3	60.7
7/4/2016	8:17:00 AM	53.2	58.6	51.4	56.8		64.9	48.5	64.9		76.0	-	50.1	59.1	-	43.8	48.3	41.9	66.3	71.8	62.2
7/4/2016	8:18:00 AM	53.0	59.7	51.5	60.3		69.7	50.1	65.6		81.3	-	57.4	71.6	-	43.6	48.3	41.7	65.7	69.9	62.7
7/4/2016	8:19:00 AM	53.7	56.9	52.0	58.6		67.4	47.6	63.2		75.9	-	54.0	66.7	-	44.2	51.2	42.1	65.6	68.5	62.8
7/4/2016	8:20:00 AM	53.7	56.3	51.9	60.5		69.5	46.5	62.3		69.2	-	57.5	66.5	-	45.3	49.9	42.0	66.2	71.2	61.0
7/4/2016	8:21:00 AM	53.0	56.3	51.6	53.6		61.6	46.9	63.0		72.4	-	56.5	66.4	-	44.2	46.8	42.2	66.1	70.2	62.2
7/4/2016	8:22:00 AM	53.6	60.9	51.5	48.8		52.1	46.6	69.1		83.8	-	51.6	61.0	-	44.5	49.4	42.2	66.3	77.0	62.7
7/4/2016	8:23:00 AM	52.6	57.2	51.2	47.3		51.5	44.8	69.7		84.0	-	49.5	61.1	-	44.8	48.9	42.8	65.4	70.2	61.8
7/4/2016	8:24:00 AM	51.6	52.6	50.8	53.7		66.0	45.2	64.6		76.6	-	48.7	54.9	-	46.1	49.2	43.9	66.2	69.6	62.5
7/4/2016	8:25:00 AM	52.3	54.8	51.4	47.7		52.6	45.5	65.1		77.3	-	51.1	61.3	-	44.3	47.3	42.4	66.5	70.8	62.8
7/4/2016	8:26:00 AM	52.4	55.2	51.5	47.9		53.8	46.3	67.6		83.6	-	49.6	56.0	-	46.6	52.8	42.1	65.8	71.8	61.0
7/4/2016	8:27:00 AM	61.2	71.6	52.1	48.1		53.7	46.5	63.4		79.4	-	49.3	59.8	-	44.6	49.8	42.3	66.9	71.5	63.1
7/4/2016	8:28:00 AM	53.4	55.3	51.8	52.3		63.6	47.2	62.9		75.9	-	47.2	55.5	-	44.3	46.8	42.6	65.9	71.2	60.9
7/4/2016	8:29:00 AM	53.4	57.7	51.9	51.9		58.0	48.9	63.1		75.8	-	47.6	59.5	-	44.6	47.7	42.6	65.5	71.2	61.4
7/4/2016	8:30:00 AM	52.3	53.4	51.4	56.1		65.7	49.0	65.1		79.7	-	48.0	58.7	-	44.2	47.6	42.3	65.8	70.8	60.8
7/4/2016	8:31:00 AM	52.1	54.8	50.9	51.7		54.7	49.2	69.0		87.9	-	48.4	57.9	-	44.0	48.1	41.6	66.1	70.3	60.9
7/4/2016	8:32:00 AM	51.6	52.5	50.6	56.6		67.7	48.7	76.8		96.0	-	59.7	73.8	-	44.1	48.0	41.8	65.1	69.9	61.2
7/4/2016	8:33:00 AM	51.5	53.2	50.6	51.9		57.4	47.8	67.3		79.6	-	54.7	66.2	-	43.8	46.7	42.0	65.5	69.3	61.0
7/4/2016	8:34:00 AM	51.6	52.5	50.8	53.0		61.1	48.0	66.9		78.2	-	51.2	60.5	-	44.1	48.6	41.5	66.2	70.0	63.8
7/4/2016	8:35:00 AM	51.6	52.5	50.7	59.6		70.3	49.6	67.3		74.5	-	49.6	56.8	-	44.1	51.3	42.3	66.2	70.4	61.9
7/4/2016	8:36:00 AM	51.8	54.9	50.9	55.4		62.9	48.4	67.7		77.5	-	49.6	57.0	-	44.7	50.1	42.7	65.9	70.9	62.3
7/4/2016	8:37:00 AM	52.5	57.5	51.1	58.2		65.5	49.0	66.9		72.5	-	49.9	54.5	-	44.2	52.1	41.5	65.3	69.2	61.0
7/4/2016	8:38:00 AM	53.4	65.9	51.1	54.8		63.5	49.7	67.1		71.9	-	49.8	54.4	-	43.9	47.6	41.4	65.8	69.6	60.9
7/4/2016	8:39:00 AM	52.9	58.0	51.1	55.7		67.9	49.0	68.5		84.2	-	52.9	64.3	-	44.1	47.0	42.2	67.0	70.3	63.7
7/4/2016	8:40:00 AM	52.9	57.1	51.1	55.9		61.9	51.6	67.4		78.5	-	50.1	56.6	-	42.9	45.0	41.4	66.6	71.8	61.8
7/4/2016	8:41:00 AM	54.1	70.6	51.1	51.1		55.3	49.1	68.2		81.6	-	50.7	55.9	-	42.4	44.5	40.8	65.5	71.0	60.3
7/4/2016	8:42:00 AM	53.2	65.4	51.5	50.5		53.9	49.2	69.8		86.5	-	51.6	56.8	-	42.2	47.2	40.7	66.5	71.5	60.8
7/4/2016	8:43:00 AM	53.3	66.5	51.4	51.9		54.3	49.4	64.7		73.6	-	52.1	57.0	-	45.0	49.5	40.7	65.9	70.2	61.6
7/4/2016	8:44:00 AM	52.1	55.2	51.0	54.9		60.9	50.9	66.3		75.0	-	51.8	57.4	-	43.7	50.9	40.8	66.8	78.0	63.9
7/4/2016	8:45:00 AM	51.6	52.9	50.8	58.5		62.2	54.1	66.5		77.0	-	51.5	56.7	-	42.2	46.0	40.8	65.4	68.4	60.9
7/4/2016	8:46:00 AM	52.7	57.9	50.9	56.0		66.1	53.2	65.9		76.5	-	51.5	57.9	-	43.5	48.1	41.1	66.5	69.4	62.7
7/4/2016	8:47:00 AM	52.2	59.0	50.9	54.7		60.1	48.7	64.9		82.7	-	52.2	59.3	-	43.0	45.2	41.4	66.2	73.0	61.8
7/4/2016	8:48:00 AM	53.1	59.3	51.1	48.9		53.2	47.2	67.0		83.2	-	51.5	57.9	-	41.2	43.6	39.8	66.3	71.3	61.2
7/4/2016	8:49:00 AM	52.3	55.5	51.1	48.9		50.4	47.1	67.1		81.8	-	51.8	59.1	-	41.7	46.2	39.8	67.4	72.3	62.6
7/4/2016	8:50:00 AM	51.9	56.9	50.9	58.5		69.1	47.2	69.4		85.2	-	51.3	57.0	-	42.4	45.1	40.2	66.2	72.1	62.0
7/4/2016	8:51:00 AM	52.3	55.2	51.2	54.1		60.6	48.0	66.3		70.6	-	51.7	59.1	-	42.2	45.6	40.4	66.0	70.6	62.3
7/4/2016	8:52:00 AM	54.2	65.5	51.6	51.3		61.8	46.7	66.6		76.6	-	56.3	66.2	-	42.0	43.9	40.4	66.8	69.8	62.6
7/4/2016	8:53:00 AM	57.4	72.4	51.4	62.3		71.3	46.5	68.2		78.4	-	51.9	60.8	-	42.4	47.9	40.4	66.1	69.4	63.0
7/4/2016	8:54:00 AM	54.7	68.3	51.7	59.7		71.3	48.0	63.4		69.4	-	52.8	59.9	-	41.8	43.8	40.0	66.4	70.4	63.6
7/4/2016	8:55:00 AM	54.6	60.2	52.3	50.2		54.6	48.4	67.1		82.3	-	52.2	55.9	-	43.8	48.3	41.4	65.7	72.9	60.7
7/4/2016	8:56:00 AM	53.4	57.7	52.2	50.8		58.2	47.6	67.8		83.9	-	51.9	58.4	-	46.7	53.1	42.4	67.1	73.7	62.8
7/4/2016	8:57:00 AM	52.9	56.1	51.6	59.0		67.3	51.3	66.7		72.3	-	51.3	57.1	-	44.4	50.8	41.4	66.9	76.3	62.4
7/4/2016	8:58:00 AM	53.7	59.3	52.0	54.2		58.7	50.3	64.4		85.9	-	52.6	59.9	-	43.3	52.6	40.2	65.5	69.4	62.4
7/4/2016	8:59:00 AM	53.9	66.2	52.0	57.1		62.7	52.9	63.2		75.7	-	52.5	58.7	-	46.5	51.8	41.5	65.9	69.6	61.7
7/4/2016	9:00:00 AM	53.5	66.6	51.4	55.5	57.6	60.9	50.4	66.8	66.4	73.2	-	51.9	59.3	-	42.5	47.9	40.4	66.5	71.0	62.7
7/4/2016	9:01:00 AM	52.7	67.1	51.2	52.1		54.9	50.3	67.0		75.0	-	50.8	56.0	-	42.5	47.0	40.1	65.4	70.9	61.7
7/4/2016	9:02:00 AM	51.9	56.9	50.9	52.1		59.0	50.3	64.8		75.1	-	51.7	57.4	-	48.8	55.6	40.6	66.1	70.5	61.3
7/4/2016	9:03:00 AM	52.8	66.7	51.3	51.7		59.5	48.9	66.0		71.3	-	53.0	59.4	-	46.2	53.4	40.9	66.1	72.2	62.0
7/4/2016	9:04:00 AM	53.8	60.1	51.1	49.9		52.3	48.2	67.6		75.0	-	51.3	57.0	-	45.3	53.1	41.3	66.4	71.3	62.0
7/4/2016	9:05:00 AM	53.9	59.7	51.4	49.0		50.8	46.9	64.8		76.1	-	51.7	58.7	-	48.6	70.7	40.6	66.8	71.2	63.3
7/4/2016	9:06:00 AM	53.8	62.2	51.8	54.1		62.2	46.6	66.7		75.7	-	54.3	63.4	-	42.7	47.2	40.2	66.2	75.6	61.9
7/4/2016	9:07:00 AM	52.7	61.1	51.7	60.2		68.7	48.8	66.3		74.1	-	54.5	66.6	-	42.4	47.1	40.2	65.5	70.8	61.7
7/4/2016	9:08:00 AM	53.4	59.6	51.7	60.0		66.4	51.5	66.0		72.1	-	53.9	69.1	-	42.8	48.0	40.5	66.8	70.6	62.3
7/4/2016	9:09:00 AM	54.7	68.3	51.9	55.9		64.1	50.1	58.6		69.7	-	54.1	58.4	-	43.2	51.7	40.7	66.6	74.2	61.5
7/4/2016	9:10:00 AM	54.0	59.9	51.8	57.3		70.6	49.6	63.4		73.7	-	55.2	60.7	-	43.3	48.7	41.3	67.0	71.4	61.9
7/4/2016	9:11:00 AM	59.8	82.6	51.8	59.7		71.9	51.4	65.7		74.1	-	55.3	59.1	-	42.6	48.5	40.5	66.0	68.8	62.0
7/4/2016	9:12:00 AM	67.3	84.7	52.8	51.6		54.9	48.9	66.3		74.0	-	54.3	61.0	-	43.8	56.2	41.0	66.9	70.9	62.5
7/4/2016	9:13:00 AM	52.9	61.4	51.3	60.8		69.3	51.0	66.5		78.9	-	53.5	60.3	-	45.6	51.1	40.9	66.5	71.4	62.2
7/4/2016	9:14:00 AM	56.6	63.9	51.4	56.4		60.4	51.1	65.7		75.2	-	54.3	61.7	-	44.7	60.9	40.5	67.0	71.3	62.8
7/4/2016	9:15:00 AM	55.4	63.8	51.4	50.8		54.5	48.5	66.4		72.7	-	53.4	61.6	-	43.7	48.2	41.1	68.1	72.3	63.2
7/4/2016	9:16:00 AM	52.0	55.5	51.2	51.6		57.1	48.5	68.4		79.8	-	53.4	58.9	-	42.5	48.2	40.5	67.1	72.5	62.4
7/4/2016	9:17:00 AM	55.4	64.0	51.1	50.7		57.0	47.8	67.5		74.0	-	53.9	60.8	-	41.8	46.7	40.1	67.5	73.0	62.7
7/4/2016	9:18:00 AM	52.6	56.1	51.2	50.6		56.2	47.9	65.8		71.9	-	55.0	64.3	-	42.8	47.1	40.9	66.7	73.6	61.3
7/4/2016	9:19:00 AM	57.2	75.8	51.4	50.6		58.2	47.2	66.7		73.3	-	57.8	71.7	-	43.2	48.5	40.9	66.2	71.3	61.9
7/4/2016	9:20:00 AM	54.7	70.2	51.4	53.7		63.8	48.1	67.0		74.5	-	53.4	59.8	-	44.2	50.8	40.8	67.4	72.5	61.8
7/4/2016	9:21:00 AM	52.5	59.2	51.2	53.0		61.7	49.2	64.8		72.2	-	54.3	60.9	-	42.5	45.3	40.5	67.0	72.1	62.3
7/4/2016	9:22:00 AM	52.4	59.1	51.3	53.9		57.5	50.2	67.6		72.9	-	54.4	59.0	-	42.9	49.3	40.7	67.5	70.8	62.9
7/4/2016	9:23:00 AM	53.1	60.3	51.3	56.0		67.6	49.1	67.1		72.0	-	54.8	62.3	-	43.3	58.2	39.7	66.8	71.3	63.8
7/4/2016	9:24:00 AM	53.1	65.1	51.4	54

7/4/2016	9:41:00 AM	53.6	65.7	51.7	58.4		67.8	49.7	72.6		87.8	-	54.2	56.9	-	43.7	52.3	39.8	67.0	71.4	61.1
7/4/2016	9:42:00 AM	58.4	72.8	52.6	58.3		69.1	52.1	67.1		76.7	-	56.8	64.9	-	45.3	50.5	40.6	66.9	74.5	57.8
7/4/2016	9:43:00 AM	54.8	66.2	51.8	53.1		59.6	50.0	65.6		74.2	-	58.1	67.4	-	43.5	47.2	40.0	67.0	74.9	61.9
7/4/2016	9:44:00 AM	55.0	66.0	52.3	56.1		64.3	50.8	66.4		75.3	-	55.6	63.5	-	42.3	45.5	39.3	66.6	74.2	61.7
7/4/2016	9:45:00 AM	53.1	56.9	51.5	62.8		69.4	53.0	66.0		75.2	-	58.0	70.6	-	45.5	50.8	41.3	67.3	75.2	63.1
7/4/2016	9:46:00 AM	52.7	55.3	51.6	59.5		70.7	51.4	67.4		77.1	-	55.2	57.6	-	44.0	48.4	39.6	67.0	72.7	62.5
7/4/2016	9:47:00 AM	54.9	62.1	51.6	62.9		69.0	53.4	68.1		74.4	-	56.6	62.6	-	43.0	46.8	40.1	67.6	71.9	63.3
7/4/2016	9:48:00 AM	52.5	54.4	51.6	61.5		70.4	50.5	67.9		78.1	-	55.4	58.9	-	42.2	45.2	40.0	66.9	72.1	61.9
7/4/2016	9:49:00 AM	53.7	56.3	51.7	60.3		70.8	50.0	65.7		76.6	-	56.0	61.2	-	42.3	46.7	39.9	67.1	76.2	62.5
7/4/2016	9:50:00 AM	54.3	58.7	52.5	56.7		69.3	49.9	64.9		74.4	-	55.8	59.1	-	44.3	55.2	40.9	67.1	71.6	63.4
7/4/2016	9:51:00 AM	53.1	58.2	51.2	50.7		58.4	48.2	64.3		72.5	-	54.6	57.8	-	46.3	58.7	40.4	66.2	69.7	63.0
7/4/2016	9:52:00 AM	52.0	54.4	51.2	53.0		62.8	48.4	65.4		74.0	-	54.1	59.0	-	56.7	76.3	40.4	66.8	72.6	61.7
7/4/2016	9:53:00 AM	52.1	63.9	51.0	50.3		59.0	48.1	66.4		73.7	-	55.5	60.2	-	67.4	82.3	39.8	67.3	72.4	62.9
7/4/2016	9:54:00 AM	52.8	56.5	51.2	61.7		71.9	49.5	66.5		87.0	-	55.7	58.7	-	64.9	81.4	40.2	67.2	72.9	62.8
7/4/2016	9:55:00 AM	52.6	55.0	51.5	54.4		61.7	50.1	64.5		79.3	-	55.8	59.7	-	44.2	49.2	41.3	67.0	71.4	63.8
7/4/2016	9:56:00 AM	53.0	63.2	51.4	61.2		68.4	52.0	64.7		74.5	-	57.3	69.1	-	42.0	44.4	40.0	67.9	75.2	64.3
7/4/2016	9:57:00 AM	52.4	54.8	51.1	52.5		56.7	49.5	65.2		74.9	-	57.5	66.7	-	42.5	46.3	41.0	66.9	72.9	63.1
7/4/2016	9:58:00 AM	54.3	57.3	53.1	57.1		71.1	48.8	64.3		82.9	-	57.4	64.9	-	42.3	57.6	40.1	68.4	76.6	64.5
7/4/2016	9:59:00 AM	54.3	55.4	53.4	56.6		68.2	50.2	64.1		71.5	-	54.9	61.6	-	41.8	45.3	39.7	67.4	72.0	62.1
7/4/2016	10:00:00 AM	54.0	56.6	52.5	52.0	59.6	56.3	49.2	63.9	63.4	74.0	-	55.1	58.6	-	45.9	50.8	41.5	68.1	72.1	63.4
7/4/2016	10:01:00 AM	53.1	54.7	51.3	55.2		63.8	50.8	63.7		69.3	-	56.0	61.0	-	43.1	47.8	41.0	68.2	73.8	64.3
7/4/2016	10:02:00 AM	52.9	59.6	51.0	54.3		63.0	51.8	62.5		69.2	-	58.4	65.5	-	45.0	49.8	41.0	67.0	71.5	62.6
7/4/2016	10:03:00 AM	54.6	63.9	51.5	56.6		65.7	52.3	64.2		72.0	-	56.0	59.1	-	43.1	46.7	40.9	67.7	72.2	63.7
7/4/2016	10:04:00 AM	52.4	53.8	51.4	52.2		54.3	50.5	65.1		70.8	-	55.4	58.7	-	42.7	46.2	39.8	67.8	74.2	63.3
7/4/2016	10:05:00 AM	52.6	56.8	51.5	54.5		59.9	50.6	62.5		70.0	-	56.7	60.6	-	42.9	45.0	40.7	66.3	70.6	61.5
7/4/2016	10:06:00 AM	52.6	54.5	51.4	57.1		60.5	53.2	62.0		71.8	-	59.6	70.2	-	42.3	46.2	40.4	66.7	74.1	62.9
7/4/2016	10:07:00 AM	53.9	68.7	51.6	64.3		73.2	54.4	63.8		70.9	-	60.2	72.6	-	42.8	51.5	40.1	66.8	72.4	61.9
7/4/2016	10:08:00 AM	54.3	71.4	51.8	64.3		70.5	55.8	64.7		70.5	-	58.2	67.1	-	44.4	50.4	40.5	66.8	74.7	62.3
7/4/2016	10:09:00 AM	54.1	62.8	51.7	57.6		68.4	51.8	63.1		68.7	-	57.0	61.2	-	50.5	60.7	42.4	66.4	72.8	61.7
7/4/2016	10:10:00 AM	52.8	58.4	51.5	59.0		66.7	52.1	63.7		69.9	-	58.0	65.6	-	43.7	48.4	41.4	66.2	70.9	62.9
7/4/2016	10:11:00 AM	52.9	58.5	51.5	61.8		68.7	55.4	63.9		71.0	-	57.2	65.5	-	43.2	47.2	41.2	67.0	71.0	63.5
7/4/2016	10:12:00 AM	52.7	54.7	51.6	58.5		66.2	51.7	66.1		70.3	-	56.2	59.3	-	43.4	46.8	41.0	66.6	77.2	63.4
7/4/2016	10:13:00 AM	52.8	56.6	51.4	54.3		57.2	51.5	64.7		72.8	-	56.7	60.2	-	43.2	48.8	41.0	67.7	78.0	63.0
7/4/2016	10:14:00 AM	52.3	54.9	51.3	58.4		66.2	53.6	65.3		79.2	-	56.4	59.2	-	43.4	49.1	40.7	66.7	70.5	62.7
7/4/2016	10:15:00 AM	53.6	58.7	51.5	58.7		64.5	52.3	65.9		72.5	-	56.9	60.8	-	43.6	48.4	41.2	67.4	72.0	62.8
7/4/2016	10:16:00 AM	54.1	60.1	52.7	60.7		71.5	51.7	65.4		72.2	-	57.2	64.3	-	43.0	46.5	40.7	67.0	75.6	62.6
7/4/2016	10:17:00 AM	54.1	58.3	52.7	61.5		71.7	53.2	62.6		67.8	-	58.2	66.2	-	46.7	51.6	41.8	66.9	73.7	62.9
7/4/2016	10:18:00 AM	54.2	58.8	52.5	55.3		60.4	51.7	62.9		67.2	-	57.7	64.2	-	43.2	46.3	40.8	66.6	73.1	62.5
7/4/2016	10:19:00 AM	54.1	57.8	52.7	60.4		68.9	52.7	64.1		69.7	-	58.2	65.9	-	43.2	47.7	41.0	66.5	71.0	62.6
7/4/2016	10:20:00 AM	56.9	66.0	53.4	53.7		57.1	50.1	64.6		71.7	-	57.6	61.5	-	45.7	51.3	42.0	67.2	73.8	63.5
7/4/2016	10:21:00 AM	54.3	59.0	53.1	53.4		55.4	50.7	67.6		81.3	-	57.3	63.0	-	44.2	48.6	41.8	67.2	70.9	63.9
7/4/2016	10:22:00 AM	53.9	55.1	52.9	57.8		61.9	52.3	60.9		69.4	-	57.7	66.2	-	43.5	49.4	41.2	67.4	70.7	63.0
7/4/2016	10:23:00 AM	54.3	59.0	52.8	57.6		65.9	52.7	58.8		71.3	-	60.0	69.3	-	43.9	48.6	41.9	68.1	73.3	62.9
7/4/2016	10:24:00 AM	54.2	60.1	52.9	62.1		72.3	54.0	64.3		87.4	-	57.3	61.6	-	43.3	50.0	41.5	66.7	73.2	61.1
7/4/2016	10:25:00 AM	54.4	58.6	53.1	61.5		71.0	52.0	59.2		70.4	-	57.6	68.5	-	46.5	50.8	42.6	67.7	76.0	62.8
7/4/2016	10:26:00 AM	54.5	59.3	53.1	54.3		58.3	51.3	60.1		74.6	-	57.5	61.3	-	43.9	49.3	41.8	67.3	72.7	62.5
7/4/2016	10:27:00 AM	54.4	59.4	52.4	55.7		66.4	49.7	56.4		67.7	-	57.7	61.8	-	43.2	46.5	41.0	67.1	73.6	62.4
7/4/2016	10:28:00 AM	53.6	56.9	52.3	67.4		78.6	53.4	57.0		68.4	-	57.4	61.2	-	44.8	51.3	41.9	67.6	79.7	63.6
7/4/2016	10:29:00 AM	54.5	59.6	52.6	54.9		61.6	51.2	57.0		68.1	-	56.6	64.5	-	45.9	51.9	42.4	68.0	82.7	63.2
7/4/2016	10:30:00 AM	53.8	55.4	52.7	55.0		58.3	52.1	57.1		72.6	-	56.8	60.5	-	46.6	50.7	43.4	75.5	87.8	64.0
7/4/2016	10:31:00 AM	53.7	56.4	52.4	59.0		70.1	52.5	58.7		78.1	-	57.0	62.4	-	45.2	50.7	41.9	67.5	73.1	63.4
7/4/2016	10:32:00 AM	53.3	54.3	52.3	62.0		70.9	52.8	56.8		68.2	-	58.9	72.9	-	44.7	49.0	42.1	67.3	77.3	61.7
7/4/2016	10:33:00 AM	54.1	57.4	52.3	58.7		67.4	52.0	59.1		69.1	-	57.1	65.5	-	45.3	53.3	42.7	68.2	75.4	63.6
7/4/2016	10:34:00 AM	54.5	58.3	53.1	52.0		54.3	49.6	61.1		72.2	-	57.7	62.3	-	44.2	47.2	42.0	69.7	84.6	65.4
7/4/2016	10:35:00 AM	53.1	57.8	51.8	55.7		65.5	49.5	58.5		68.1	-	57.4	63.4	-	44.4	47.6	42.1	68.1	77.4	62.9
7/4/2016	10:36:00 AM	53.2	58.5	52.0	58.4		66.1	51.2	61.4		77.5	-	58.0	64.9	-	44.7	51.0	42.6	67.7	72.4	63.2
7/4/2016	10:37:00 AM	53.4	63.7	52.0	54.4		60.5	50.1	62.9		80.0	-	57.2	60.2	-	45.5	50.4	42.2	67.3	72.3	63.4
7/4/2016	10:38:00 AM	53.3	56.9	52.0	57.1		63.3	51.1	60.1		72.8	-	57.1	60.9	-	47.4	51.3	43.4	66.8	72.8	62.2
7/4/2016	10:39:00 AM	55.1	63.5	52.6	54.5		60.8	50.1	60.2		72.7	-	57.3	60.8	-	44.8	48.1	42.6	66.7	71.4	61.5
7/4/2016	10:40:00 AM	53.6	56.5	52.3	60.1		69.3	49.9	61.4		73.6	-	57.5	63.4	-	45.0	48.3	43.1	68.0	77.1	64.5
7/4/2016	10:41:00 AM	53.3	56.2	51.9	55.2		61.0	51.2	62.5		77.2	-	58.0	61.6	-	45.6	49.1	43.0	67.1	70.8	62.2
7/4/2016	10:42:00 AM	54.4	58.6	52.7	56.7		64.3	50.4	59.9		67.4	-	58.5	61.6	-	45.6	51.4	42.9	67.1	72.3	61.8
7/4/2016	10:43:00 AM	53.1	56.8	51.9	65.4		74.6	53.6	59.5		67.6	-	60.1	69.0	-	45.7	53.9	42.6	67.4	72.0	63.5
7/4/2016	10:44:00 AM	54.7	59.5	52.3	58.8		68.4	51.5	59.0		68.8	-	58.2	63.3	-	44.4	47.5	42.3	66.3	71.9	61.3
7/4/2016	10:45:00 AM	53.5	57.1	52.1	62.7		73.8	51.7	61.7		71.8	-	58.4	63.1	-	44.8	47.9	42.9	67.3	75.7	63.1
7/4/2016	10:46:00 AM	52.7	57.8	51.7	59.5		67.4	51.4	61.7		71.8	-	57.9	65.2	-	47.1	51.6	42.9	68.6	75.1	62.9
7/4/2016	10:47:00 AM	53.8	59.7	52.4	58.2		68.7	52.6	68.0		74.8	-	58.1	63.0	-	45.5	48.6	43.1	68.2	74.1	62.7
7/4/2016	10:48:00 AM	54.0	61.2	52.2	55.7		64.4	51.0	66.6		79.0	-	58.0	63.0	-	44.7	48.7	42.9	67.5	73.1	63.1
7/4/2016	10:49:00 AM	53.4	55.6	52.2	58.2		66.1	50.9	61.5		70.3	-	58.6	66.3	-	44.9	49.4	43.1	68.0	75.9	63.5
7/4/2016	10:50:00 AM	53.7	56.2	52.6	64.4		73.6	54.4	62.1		72.1	-	58.4	74.6	-	45.1	50.0	42.4	67.4	73.9	62.5
7/4/2016	10:51:00 AM	54.1	59.6	52.5	58.6		66.9	51.7	62.8		67.8	-	59.2	65.7	-	47.7	51.5	44.0	67.3	75.2	63.4
7/4/2016	10:52:00 AM	54.2	60.7	52.4	51.5		54.7	49.4	66.3		82.0	-	61.1	70.4	-	44.2	47.1	42.3	67.6	72.5	64.0
7/4/2016	10:53:00 AM	53.2	56.3	52.0	54.7		59.7	51.6	66.7		73.4	-	58.6	66.2	-	44.4	47.7	42.4	67.4	73.9	63.5
7/4/2016	10:54:00 AM	53.3	60.4	52.0	53.8		59.0	50.5	67.0		76.2	-	60.6	69.2	-	44.8	47.3	43.0	68.0	72.7	64.3
7/4/2016	10:55:00 AM	54.2	63.7	52.4	58.3		69.0	51.7	59.8		65.1	-	58.5	63.4	-	46.4	52.2	43.2	67.1	75.6	62.7
7/4/2016	10:56:00 AM	54.2	61.9	52.7	63.0		70.4	55.5	63.2		71.0	-	59.0	64.7	-	48.5	53.9	45.2	67.7	74.8	64.7
7/4/2016	10:57:00 AM	54.3	58.1	53.0	61.1		74.1	55.5	62.9		72.8	-	57.9	61.4	-	45.9	49.4	44.1	67.4	77.0	63.4
7/4/2016	10:58:00 AM	54.1	57.1	52.7	61.1		70.6	56.9	66.3		80.4	-	57.8	64.8	-	45.5	49.9	43.2	67.3	72.0	63.6
7/4/2016	10:59:00 AM	54.2	56.1	52.7	58.6		66.0	53.4	66.2		76.5	-	57.8	63.9	-	44.9	48.3	42.6	68.2	79.1	62.3
7/4/2016	11:00:00 AM	54.6	58.9	52.6	62.7	62.4	74.0	54.3	67.5	69.0	76.0	-	58.2	61.9	-	45.0	49.6	42.8	67.2	71.7	62.2
7/4/2016	11:01:00 AM	54.0	57.4	52.3	54.6		59.5	51.0	66.5		77.8	-	58.2	62.0	-	44.9	49.1	43.1	67.6	76.6	63.3
7/4/2016	11:02:00 AM	54.3	58.2	52.9	60.0		65.9	54.4	62.2		76.1	-	58.9	63.6	-	44.9	52.8	42.9	68.1	77.1	63.3
7/4/2016	11:03:00 AM	54.7	60.2	53.0	62.2		73.5	52.9	63.9		76.3	-	58.6	68.4	-	45.6	49.1	43.5	67.7	71.9	62.4
7/4/2016	11:04:00 AM	55.4	62.2	53.7	57.2		67.8	50.4	67.3		79.3	-	57.2	63.5	-	45.4	48.0	43.1	68.5	75.1	64.9
7/4/2016	11:05:00 AM	54.6	59.3	53.3	65.6		74.2	55.3	63.6		76.5	-	58.5	67.6	-	45.5	50.0	43.3	68.7	74.4	64.2
7/4/2016	11:06:00 AM	55.4	59.6	53.5	58.1		64.9	50.3	63.5		80.2	-	58.1	63.6	-	45.7	48.8	43.6	68.4	73.0	64.5
7/4/2016	11:07:00 AM	55.6	58.5	52.9	58.8		66.0	52.3	58.7		70.0	-	57.3	63.0	-	45.6	48.3	43.4	68.6	76.4	64.8
7/4/2016	11:08:00 AM	54.4	56.6	53.1	59.0		69.7	50.6	61.6		75.4	-	57.6	64.6	-	45.9	49.6	43.7	68.0	73.2	63.9
7/4/2016	11:09:00 AM	56.2	68.0	52.9	61.1		71.3	53.6	63.8		76.2	-	58.3	62.3	-	47.3	50.4	44.1	68.2	72.8	64.7
7/4/2016	11:10:00 AM	54.0	55.8	52.5	64.0		71.2	58.0	67.3		79.8	-	58.2	63.5	-	48.8	52.5	45.7	67.6	71.6	62.4
7/4/2016	11:11:00 AM	59.5	72.7	54.5	58.4		63.8	54.4	67.8		76.7	-	58.4	63.4	-	49.1	53.8	44.9	67.6	72.5	63.7
7/4/2016	11:12:00 AM	64.4	76.8	54.8	55.7		61.5	51.1	66.6		74.0	-	57.8	61.6	-	55.8	64.8	46.8	67.5	72.7	64.4
7/4/2016	11:13:00 AM	66.2	80.9	52.8	69.3		79.1	52.5	64.9		73.4	-	58.2	61.6	-	66.2	73.2	50.0	68.3	74.3	65.2
7/4/2016	11:14:00 AM	55.2	61.6	52.9	60.6		68.0	52.3	67.2		76.1	-	58.4	62.3	-	49.9	55.4	45.7	68.4	72.9	64.5
7/4/2016	11:15:00 AM	53.9	55.3	52.6	59.1		68.7	51.7	70.5		77.2	-	61.4	71.1	-	46.6	51.8	43.6	68.0	73.1	63.6
7/4/2016	11:16:00 AM	53.9	57.9	52.5	58.0		62.6	53.1	71.8		78.1	-	59.0	67.6	-	46.7	51.2	44.2	68.6	74.1	64.6
7/4/2016	11:17:00 AM	54.1	57.3	52.9	61.2		69.8	51.0	71.7		78.4	-	59.0	67.5	-	47.5	52.0	44.4	68.4	74.4	64.4
7/4/2016	11:18:00 AM	53.7	55.0	52.7	57.9		65.6	51.8	71.9		79.4	-	59.2	67.5	-	46.2	51.3	44.1	68.5	73.4	64.0
7/4/2016	11:19:00 AM	54.8	58.3	52.4	56.7		64.7	49.7	73.3		80.1	-	60.2	69.1	-	47.2	51.3	44.5	69.8	81.5	64.5
7/4/2016	11:20:00 AM	53.5	56.3	51.9	58.5		69.9	50.1	73.6		83.0	-	58.1	61.8	-	46.8	52.5	43.6	67.9	74.1	64.4
7/4/2016	11:21:00 AM	53.5	55.8	52.0	61.4		72.0	54.5	69.8		80.5	-	58.2	60.4	-	47.5	53.1	44.2	70.3	81.7	64.2
7/4/2016	11:22:00 AM	54.7	58.9	52.7	59.3		65.5	54.5	69.5		77.7	-	58.7	63.1	-	46.4	51.2	43.7	69.6	79.9	63.7
7/4/2016	11:23:00 AM	54.9	59.2	53.2	58.3		64.8	54.3	69.3		77.5	-	58.3	68.8	-	47.0	52.1	43.6	70.4	81.9	64.5
7/4/2016	11:24:00 AM	54.1	57.2	53.0	66.6		74.0	56.7	71.0		77.9	-	56.9	61.6	-	46.6	52.4	43.5	70.2	84.5	64.0
7/4/2016	11:25:00 AM	53.9	56.4	52.8	62.9		73.6	52.3	70.2		79.2	-	57.7	59.9	-	45.7	51.1	43.1	71.9	86.2	62.7
7/4/2016	11:26:00 AM	54.4	56.8	53.1	55.9		61.7	51.5	71.4		79.5	-	57.9	60.7	-	47.7	52.4	43.8	70.4	87.4	62.6
7/4/2016	11:27:00 AM	56.0	67.9	52.9	56.3		59.4	52.6	72.3		81.2	-	58.1	64.0	-	46.6	53.4	43.9	69.6	83.1	64.5
7/4/2016	11:28:00 AM	57.1	62.4	53.2	59.6		66.1	54.8	70.7		79.9	-	58.2	63.0	-	46.2	51.2	43.6	68.9	79.8	62.2
7/4/2016	11:29:00 AM	60.9	68.8	54.3	56.2		63.0	52.2	72.4		78.6	-	60.1	66.8	-	47.2	50.8	43.6	68.0	74.6	64.2
7/4/2016	11:30:00 AM	54.7	60.3	52.3	54.5		58.1	51.8	67.2		77.3	-	57.5	62.7	-	46.4	50.2	43.3	70.2	80.9	64.8
7/4/2016	11:31:00 AM	54.2	59.0	52.5	60.1		66.5	52.6	70.8		79.8	-	58.0	63.0	-	47.4	53.0	43.8	69.1	77.6	64.7
7/4/2016	11:32:00 AM	54.4	56.7	53.3	60.5		68.1	55.8	71.3		78.8	-	59.1	71.7	-	46.0	49.0	44.2	69.0	75.9	65.0
7/4/2016	11:33:00 AM	54.8	58.2	53.3	58.7		65.1	50.8	70.7		75.3	-	58.1	61.6	-	46.0	51.0	43.3	68.5	73.3	64.4
7/4/2016	11:34:00 AM	58.4	73.4	53.6	54.9		61.8	50.1	69.1		79.0	-	57.7	60.1	-	45.9	49.9	43.6	68.4	75.6	64.3
7/4/2016	11:35:00 AM	54.7	60.6	53.0	53.0		57.6	50.3	70.6		82.9	-	59.6	71.0	-	45.5	51.3	43.4	68.5	72.4	64.8
7/4/2016	11:36:00 AM	53.7	58.4	52.2	64.9		73.0	50.9	70.9		82.7	-	60.7	72.2	-	46.1	52.0	43.6	67.9	72.6	64.2
7/4/2016	11:37:00 AM	54.0	63.0	52.5	63.0		68.8	57.7	71.0		80.6	-	58.0	62.6	-	46.6	51.4	44.6	68.3	72.5	63.4
7/4/2016	11:38:00 AM	61.6	79.4	53.3	67.6		76.7	58.0	71.9		85.2	-	58.3	60.7	-	46.4	50.1	44.1	67.2	71.2	64.0
7/4/2016	11:39:00 AM	54.1	60.7	52.6	58.4		64.5	54.1	70.6		80.2	-	58.0	63.2	-	46.2	50.4	43.7	68.5	74.4	64.0
7/4/2016	11:40:00 AM	56.2	61.5	53.2	58.2		61.9	54.3	69.4		81.4	-	59.1	64.3	-	46.3	53.6	43.6	67.9	81.8	63.4
7/4/2016	11:41:00 AM	54.3	57.5	53.0	56.1		62.5	50.9	69.7		83.7	-	58.6	62.5	-	46.0	52.5	43.3	68.2	78.6	63.5
7/4/2016	11:42:00 AM	54.9	59.3	53.0	53.8		57.9	51.0	66.8		77.5	-	58.6	61.4	-	48.9	53.8	44.3	67.2	74.8	63.5
7/4/2016	11:43:00 AM	54.9	60.2	53.2	74.9		85.3	53.9	67.4		77.4	-	58.9	67.0	-	47.4	55.1	44.2	67.9	72.4	64.9
7/4/2016	11:44:00 AM	54.8	56.5	53.2	59.8		68.8	55.1	66.2		72.6	-	58.8	65.5	-	47.7	56.4	44.7	67.9	72.3	63.2
7/4/2016	11:45:00 AM	54.6	57.7	53.1	62.2		72.3	54.8	67.2		79.1	-	59.9	67.9	-	49.0	53.7	45.5	68.6	73.2	65.3
7/4/2016	11:46:00 AM	55.5	57.1	54.3	59.8		67.3	54.4	67.5		79.3	-	58.9	66.0	-	69.5	81.2	49.1	68.4	79.4	63.1
7/4/2016	11:47:00 AM	58.9	66.8	53.3	59.8		72.6	53.6	66.7		72.4	-	57.5	61.3	-	52.0	59.1	45.6	67.6	73.9	61.1
7/4/2016	11:48:00 AM	54.1	55.7	52.9	56.7		66.7	51.8	63.4		76.2	-	58.0	62.3	-	47.3	51.2	44.5	68.4	77.7	64.5
7/4/2016	11:49:00 AM	55.4	61.7	53.5	60.7		68.1	52.6	66.3		73.3	-	58.1	60.3	-	47.2	52.7	44.1	68.0	75.4	64.0
7/4/2016	11:50:00 AM	54.5	58.1	53.3	55

7/4/2016	12:07:00 PM	55.3	59.6	53.0	61.5		68.3	55.3	69.4		79.0	-	55.5	58.7	-	46.5	51.4	43.4	68.4	73.3	63.3
7/4/2016	12:08:00 PM	55.6	59.6	53.1	55.5		59.8	51.7	70.6		78.1	-	60.6	74.8	-	46.5	52.7	43.3	69.9	77.6	65.4
7/4/2016	12:09:00 PM	53.7	57.1	52.4	52.8		55.6	50.9	68.6		76.3	-	56.8	63.6	-	46.9	52.5	44.2	68.8	73.2	65.6
7/4/2016	12:10:00 PM	53.5	57.7	52.1	52.8		57.4	50.6	69.0		74.1	-	56.6	63.3	-	47.2	54.0	44.0	69.5	74.8	65.6
7/4/2016	12:11:00 PM	54.7	59.9	52.6	53.9		57.5	51.6	69.0		76.6	-	56.4	60.1	-	46.9	52.9	44.4	68.8	74.4	65.4
7/4/2016	12:12:00 PM	55.6	60.1	53.2	60.3		69.4	52.0	67.1		80.4	-	56.8	61.3	-	51.3	57.9	44.4	68.7	80.1	64.6
7/4/2016	12:13:00 PM	54.9	59.1	52.4	59.3		65.9	53.7	68.0		77.5	-	56.6	59.8	-	47.3	51.4	44.1	69.5	74.2	66.1
7/4/2016	12:14:00 PM	54.2	57.1	53.0	55.4		60.8	52.6	67.0		74.3	-	56.4	67.5	-	46.7	53.7	43.9	69.6	78.2	63.7
7/4/2016	12:15:00 PM	54.7	64.4	52.8	54.3		59.0	49.7	69.6		81.0	-	56.8	62.8	-	46.4	52.2	43.7	69.3	77.4	64.8
7/4/2016	12:16:00 PM	56.1	67.8	52.5	57.6		63.2	52.1	65.1		76.9	-	56.3	59.5	-	47.2	52.8	43.9	71.8	81.6	66.3
7/4/2016	12:17:00 PM	55.9	63.0	53.3	62.0		72.0	53.7	65.5		70.9	-	57.1	61.0	-	46.7	57.5	43.7	70.9	85.2	65.6
7/4/2016	12:18:00 PM	54.8	57.4	53.4	53.4		57.0	50.6	64.8		70.4	-	56.8	62.9	-	46.7	53.3	43.4	68.7	73.3	65.2
7/4/2016	12:19:00 PM	54.8	59.3	53.2	52.3		55.0	50.1	65.7		74.5	-	58.4	66.5	-	46.4	51.2	43.8	70.1	83.2	65.4
7/4/2016	12:20:00 PM	54.2	62.8	52.3	56.5		60.5	52.9	66.4		74.9	-	57.0	63.5	-	47.9	52.7	44.2	68.5	75.8	65.0
7/4/2016	12:21:00 PM	54.0	59.0	52.0	57.7		62.4	54.2	67.3		76.4	-	56.4	59.5	-	47.9	55.0	44.7	69.3	74.0	66.0
7/4/2016	12:22:00 PM	54.2	58.6	52.3	55.4		61.0	52.3	66.7		75.0	-	55.5	61.0	-	47.1	52.0	44.1	68.4	74.0	64.8
7/4/2016	12:23:00 PM	55.0	68.0	52.7	61.9		75.0	51.5	66.7		80.8	-	56.6	60.5	-	49.2	53.6	45.8	68.5	74.0	63.8
7/4/2016	12:24:00 PM	54.7	64.7	52.7	56.5		60.1	52.6	67.0		76.3	-	57.2	64.9	-	47.6	53.4	44.7	69.6	79.0	64.8
7/4/2016	12:25:00 PM	54.6	57.3	52.3	54.3		57.4	51.6	64.6		76.3	-	56.5	59.2	-	46.8	53.1	43.9	69.1	75.5	65.7
7/4/2016	12:26:00 PM	54.8	63.7	53.2	53.3		57.9	50.9	65.8		74.2	-	56.8	60.5	-	46.8	54.0	43.7	69.3	79.5	65.0
7/4/2016	12:27:00 PM	53.8	56.9	52.4	53.4		55.6	50.7	67.4		75.7	-	58.3	69.2	-	47.4	54.7	44.0	69.1	74.4	65.5
7/4/2016	12:28:00 PM	55.6	66.2	53.1	55.7		63.4	51.4	66.9		75.9	-	57.3	61.2	-	47.1	51.8	43.8	68.8	75.2	64.0
7/4/2016	12:29:00 PM	54.3	59.4	52.7	60.6		65.0	55.8	68.9		75.1	-	58.0	68.0	-	48.4	52.9	44.7	68.8	73.8	64.6
7/4/2016	12:30:00 PM	54.1	58.1	52.5	57.8		67.5	52.1	67.0		76.0	-	56.8	60.2	-	47.6	53.2	44.5	69.4	80.8	64.7
7/4/2016	12:31:00 PM	54.7	58.3	53.0	53.4		57.1	51.0	68.1		78.0	-	57.2	60.4	-	47.3	53.8	44.0	69.4	75.4	65.3
7/4/2016	12:32:00 PM	57.7	68.0	53.4	52.9		56.9	51.0	68.0		79.4	-	56.7	67.2	-	47.6	52.9	44.1	68.9	75.0	65.5
7/4/2016	12:33:00 PM	57.9	72.6	53.1	59.9		66.9	52.7	68.7		77.4	-	57.0	63.2	-	48.7	56.9	44.7	69.0	77.5	64.8
7/4/2016	12:34:00 PM	59.0	72.4	53.9	58.1		62.9	54.7	71.8		91.0	-	57.3	61.7	-	48.3	54.1	44.7	68.8	76.4	65.3
7/4/2016	12:35:00 PM	57.0	69.8	53.8	56.4		62.1	52.2	66.9		77.4	-	56.9	59.0	-	48.2	54.2	44.7	68.6	73.7	65.1
7/4/2016	12:36:00 PM	57.8	66.8	53.0	63.1		72.4	54.8	68.7		77.5	-	57.3	63.8	-	48.1	55.6	45.1	67.8	72.3	64.8
7/4/2016	12:37:00 PM	54.5	57.9	52.7	59.0		67.2	54.1	66.7		75.4	-	57.8	66.4	-	48.5	53.8	44.6	69.0	78.8	64.6
7/4/2016	12:38:00 PM	55.7	63.0	53.5	56.9		65.6	52.1	65.2		79.3	-	57.7	62.6	-	48.3	55.4	44.6	69.0	76.9	65.8
7/4/2016	12:39:00 PM	53.2	55.2	51.8	62.7		67.5	57.6	63.4		72.2	-	56.8	62.9	-	47.9	54.0	44.5	69.3	75.2	65.8
7/4/2016	12:40:00 PM	54.3	61.4	52.4	65.6		72.7	54.7	65.8		72.7	-	56.3	60.2	-	48.6	54.7	44.8	69.0	78.6	66.6
7/4/2016	12:41:00 PM	55.7	58.5	54.0	58.3		62.4	54.3	70.4		85.7	-	57.6	65.1	-	48.5	54.0	44.8	68.8	73.2	66.0
7/4/2016	12:42:00 PM	54.7	56.5	53.0	61.3		71.9	55.6	69.0		76.1	-	56.4	60.7	-	49.5	55.1	45.6	68.4	77.2	64.8
7/4/2016	12:43:00 PM	58.3	67.9	53.7	63.9		72.1	56.1	71.5		83.0	-	56.1	58.8	-	49.0	53.8	44.7	69.6	77.4	66.4
7/4/2016	12:44:00 PM	55.8	62.6	53.2	60.4		66.9	54.7	68.0		75.7	-	57.4	61.9	-	49.1	55.6	44.5	69.0	79.9	64.3
7/4/2016	12:45:00 PM	54.7	62.7	53.1	57.3		63.1	53.6	67.7		80.7	-	57.0	60.6	-	48.4	54.7	44.3	69.5	75.9	66.0
7/4/2016	12:46:00 PM	58.7	68.6	53.8	61.8		71.7	57.1	66.3		77.4	-	56.1	59.9	-	49.1	58.0	44.3	68.3	75.3	64.9
7/4/2016	12:47:00 PM	58.8	72.2	53.3	57.8		61.6	54.2	67.9		77.8	-	57.1	63.8	-	48.5	55.8	44.7	68.9	72.3	65.6
7/4/2016	12:48:00 PM	54.5	57.9	53.2	58.7		66.4	53.0	65.6		78.8	-	59.2	70.6	-	48.9	54.7	44.4	68.2	73.9	65.1
7/4/2016	12:49:00 PM	54.8	65.6	53.2	55.4		62.3	52.1	70.2		77.4	-	57.1	61.6	-	48.3	54.2	43.3	68.5	75.4	65.9
7/4/2016	12:50:00 PM	54.9	58.3	53.6	56.5		64.5	53.1	71.8		77.8	-	57.5	62.2	-	49.5	56.1	44.9	69.6	75.0	66.3
7/4/2016	12:51:00 PM	55.4	60.9	54.1	57.8		60.8	55.1	71.8		78.5	-	57.8	62.8	-	49.5	55.3	44.5	68.7	76.1	65.8
7/4/2016	12:52:00 PM	56.0	61.0	54.4	56.5		61.4	53.2	75.8		90.2	-	57.7	63.6	-	49.2	55.6	44.8	68.5	73.4	65.4
7/4/2016	12:53:00 PM	56.8	61.9	54.0	60.4		67.6	54.8	73.9		85.9	-	58.8	73.9	-	49.7	55.8	45.4	68.9	74.0	66.4
7/4/2016	12:54:00 PM	55.7	57.4	54.1	59.0		62.2	54.6	71.9		86.2	-	56.6	61.9	-	49.1	54.0	45.3	68.6	74.1	65.5
7/4/2016	12:55:00 PM	56.8	61.4	54.7	61.5		69.3	54.2	69.7		78.2	-	59.1	68.3	-	49.5	55.4	45.2	68.5	76.0	64.9
7/4/2016	12:56:00 PM	55.7	63.1	54.2	55.7		61.3	51.0	68.7		79.5	-	56.1	60.0	-	49.4	55.1	45.1	68.5	74.1	65.0
7/4/2016	12:57:00 PM	60.8	70.6	54.6	52.9		57.9	50.6	69.3		77.1	-	57.4	64.7	-	48.3	53.8	44.2	67.9	71.3	65.2
7/4/2016	12:58:00 PM	55.7	67.0	53.9	58.2		65.7	52.2	70.1		79.0	-	56.5	62.2	-	48.5	54.0	44.4	67.8	72.5	65.1
7/4/2016	12:59:00 PM	55.5	68.2	53.7	59.4		69.5	53.3	69.7		76.8	-	56.1	62.4	-	48.3	53.0	45.2	67.7	71.8	65.1
7/4/2016	1:00:00 PM	56.6	68.2	54.3	62.1	62.6	66.3	57.0	68.9	73.1	82.3	-	57.3	61.3	-	48.5	54.4	44.8	67.9	72.7	64.9
7/4/2016	1:01:00 PM	54.3	57.9	52.9	64.8		70.6	57.9	67.7		77.6	-	57.1	59.9	-	49.7	55.3	45.6	68.7	77.6	65.8
7/4/2016	1:02:00 PM	55.0	61.7	53.2	67.6		73.5	58.9	67.2		74.9	-	58.1	67.0	-	51.4	56.3	46.9	68.6	74.9	65.5
7/4/2016	1:03:00 PM	54.2	57.4	52.4	67.1		76.4	59.4	66.8		76.3	-	60.0	71.4	-	48.6	54.2	43.9	69.7	79.1	65.9
7/4/2016	1:04:00 PM	55.7	60.4	53.7	62.3		67.7	57.1	67.6		75.1	-	58.1	63.8	-	50.5	55.2	45.2	69.4	78.5	65.5
7/4/2016	1:05:00 PM	56.2	63.1	52.9	62.3		67.3	57.6	68.0		81.2	-	57.2	60.8	-	48.5	54.5	44.7	68.6	73.8	66.1
7/4/2016	1:06:00 PM	54.8	59.5	52.6	62.8		69.6	56.6	69.5		87.6	-	57.9	62.7	-	47.8	53.3	44.1	68.6	72.0	66.0
7/4/2016	1:07:00 PM	54.9	59.7	53.1	57.2		61.0	54.0	68.4		75.1	-	58.4	67.3	-	48.3	54.1	44.2	68.2	74.5	65.6
7/4/2016	1:08:00 PM	55.7	60.0	52.6	64.6		74.2	56.7	68.3		74.4	-	57.3	60.4	-	48.6	54.1	45.4	69.1	73.5	65.4
7/4/2016	1:09:00 PM	54.0	56.6	52.5	57.1		64.5	52.9	69.3		77.3	-	57.1	60.3	-	49.4	53.1	45.4	69.3	74.2	66.4
7/4/2016	1:10:00 PM	54.8	57.7	52.7	60.0		68.0	52.8	69.4		76.8	-	60.0	72.5	-	48.7	52.2	45.4	69.5	78.2	66.2
7/4/2016	1:11:00 PM	54.3	56.7	52.2	59.2		67.4	53.1	69.3		74.7	-	57.0	62.9	-	48.2	52.3	44.4	69.2	72.6	66.6
7/4/2016	1:12:00 PM	55.3	60.5	52.5	54.6		61.2	51.9	66.8		75.5	-	57.7	61.0	-	48.6	53.7	44.3	68.5	72.9	65.9
7/4/2016	1:13:00 PM	55.0	59.2	53.2	57.1		65.3	51.3	67.7		78.7	-	57.7	62.3	-	47.2	51.9	44.2	68.2	73.1	64.9
7/4/2016	1:14:00 PM	54.0	55.6	53.0	54.5		58.1	51.2	68.7		81.3	-	59.0	65.5	-	49.0	52.4	45.1	67.8	75.6	65.3
7/4/2016	1:15:00 PM	55.8	63.2	52.5	54.5		58.5	51.7	65.5		72.7	-	61.3	77.1	-	46.8	50.9	44.4	67.9	73.7	65.3
7/4/2016	1:16:00 PM	56.2	62.6	53.4	54.6		59.6	51.8	66.4		76.0	-	57.6	67.4	-	47.5	52.0	44.1	68.8	72.1	66.2
7/4/2016	1:17:00 PM	54.4	64.2	52.7	58.0		64.8	54.4	65.9		72.8	-	57.1	65.4	-	46.8	52.0	44.2	69.2	73.9	66.3
7/4/2016	1:18:00 PM	55.7	67.8	53.6	57.7		62.2	54.7	67.2		75.3	-	58.4	67.0	-	46.4	53.3	43.8	68.7	73.3	65.3
7/4/2016	1:19:00 PM	54.4	58.0	53.3	60.7		69.1	54.6	67.4		77.2	-	57.2	65.2	-	46.4	50.1	43.5	68.5	75.7	65.3
7/4/2016	1:20:00 PM	56.8	71.9	54.0	65.7		76.1	54.4	66.6		74.7	-	56.0	58.0	-	46.9	50.4	44.1	69.1	72.6	66.7
7/4/2016	1:21:00 PM	55.7	66.5	53.0	59.7		64.3	55.5	64.3		76.8	-	56.9	63.4	-	47.2	51.1	43.0	67.4	71.4	64.2
7/4/2016	1:22:00 PM	55.2	57.5	53.6	64.1		72.8	56.5	66.0		75.5	-	58.0	65.0	-	47.1	50.4	43.7	68.4	79.4	64.9
7/4/2016	1:23:00 PM	55.5	63.9	53.4	59.0		67.1	53.2	66.1		77.2	-	58.5	66.2	-	46.6	53.5	44.2	68.4	75.3	65.8
7/4/2016	1:24:00 PM	55.1	61.5	53.5	59.6		64.2	54.3	66.7		77.2	-	56.4	60.3	-	46.4	49.8	44.1	68.0	73.2	64.4
7/4/2016	1:25:00 PM	55.0	66.7	52.3	68.9		80.9	54.7	67.6		73.9	-	56.7	60.1	-	46.4	50.1	43.6	68.3	74.9	65.6
7/4/2016	1:26:00 PM	53.6	56.1	52.4	59.6		68.2	53.7	67.9		76.8	-	56.8	59.7	-	48.2	51.6	44.5	68.1	72.8	65.6
7/4/2016	1:27:00 PM	54.2	62.2	52.3	59.4		67.5	53.5	67.5		73.4	-	58.3	64.2	-	46.4	54.5	43.1	67.8	77.0	64.9
7/4/2016	1:28:00 PM	54.2	57.6	52.8	59.9		69.9	55.8	72.8		87.0	-	60.6	73.9	-	45.5	48.3	43.2	67.9	72.9	65.0
7/4/2016	1:29:00 PM	54.5	63.8	52.7	58.0		63.5	55.3	71.1		82.4	-	59.8	68.5	-	46.0	49.9	43.9	67.2	72.2	64.5
7/4/2016	1:30:00 PM	54.4	64.0	52.7	64.8		75.9	54.7	72.0		86.8	-	57.0	61.1	-	46.0	50.6	43.4	67.2	70.6	64.7
7/4/2016	1:31:00 PM	53.9	68.2	52.1	59.8		69.4	53.5	70.8		81.9	-	56.3	61.7	-	45.2	48.9	42.8	67.8	74.3	65.8
7/4/2016	1:32:00 PM	59.3	73.8	52.6	68.8		77.3	56.1	70.1		83.3	-	57.3	64.5	-	45.2	50.4	43.3	68.1	72.7	65.4
7/4/2016	1:33:00 PM	56.1	61.0	53.6	59.9		65.4	54.3	71.5		81.4	-	57.6	62.8	-	46.6	61.0	43.4	67.9	75.0	65.3
7/4/2016	1:34:00 PM	54.8	60.4	52.5	59.6		64.5	54.2	70.7		81.8	-	57.3	61.6	-	45.1	48.6	43.1	68.6	75.5	66.2
7/4/2016	1:35:00 PM	53.7	56.7	52.1	62.6		70.2	56.2	69.1		79.2	-	57.2	66.4	-	45.6	48.7	43.3	68.2	76.5	65.4
7/4/2016	1:36:00 PM	54.0	57.3	52.1	59.6		63.3	56.1	69.4		80.8	-	57.6	62.9	-	47.6	51.7	44.9	68.4	72.7	65.8
7/4/2016	1:37:00 PM	54.0	56.7	52.7	61.1		65.0	57.5	68.0		77.9	-	57.7	60.9	-	47.9	54.4	43.4	68.6	75.4	65.2
7/4/2016	1:38:00 PM	55.3	61.7	52.6	58.3		65.4	53.8	67.7		79.2	-	56.9	63.6	-	45.8	50.4	43.5	68.9	75.4	65.8
7/4/2016	1:39:00 PM	54.4	59.3	52.4	60.0		63.2	56.0	67.8		77.2	-	58.6	67.1	-	46.0	52.7	43.2	68.9	75.9	66.1
7/4/2016	1:40:00 PM	53.8	56.1	52.3	59.6		65.8	56.5	67.7		77.7	-	57.5	61.8	-	46.9	56.0	42.4	69.2	76.2	65.8
7/4/2016	1:41:00 PM	55.1	63.0	52.2	62.4		67.3	57.8	66.1		73.8	-	59.0	65.8	-	47.4	50.2	44.5	69.1	77.2	66.2
7/4/2016	1:42:00 PM	55.1	63.4	52.9	64.9		74.0	56.0	70.6		86.5	-	58.0	63.1	-	45.4	48.1	42.6	69.6	79.4	66.3
7/4/2016	1:43:00 PM	55.3	63.1	52.5	60.9		65.4	55.2	68.4		84.1	-	57.2	67.3	-	46.0	57.6	43.8	69.2	76.3	66.5
7/4/2016	1:44:00 PM	57.3	78.9	52.2	58.9		64.0	54.5	73.1		84.6	-	57.9	61.9	-	45.3	50.2	42.9	69.0	75.0	65.9
7/4/2016	1:45:00 PM	53.9	58.4	52.3	60.8		65.4	56.3	78.2		91.9	-	59.2	67.1	-	45.6	48.3	43.5	68.1	73.5	65.8
7/4/2016	1:46:00 PM	58.9	77.9	52.5	62.2		68.0	56.9	75.2		88.4	-	58.1	62.0	-	45.3	48.9	43.5	67.9	73.0	64.9
7/4/2016	1:47:00 PM	56.3	70.0	52.4	70.5		75.0	63.8	80.0		94.4	-	57.4	64.1	-	44.8	48.7	42.3	68.6	77.2	65.2
7/4/2016	1:48:00 PM	63.8	78.9	52.3	63.7		71.3	55.8	74.1		89.9	-	57.9	61.7	-	44.8	49.4	43.0	68.8	73.3	65.5
7/4/2016	1:49:00 PM	60.3	80.3	52.4	57.9		67.3	53.4	76.5		83.4	-	56.2	58.7	-	46.2	51.9	43.4	69.0	73.4	65.6
7/4/2016	1:50:00 PM	62.6	77.6	53.8	61.3		73.1	52.8	76.7		85.0	-	56.9	64.1	-	46.6	50.9	44.0	68.8	74.3	66.0
7/4/2016	1:51:00 PM	60.1	79.7	53.2	59.6		67.8	52.4	75.2		82.2	-	58.5	62.1	-	45.9	50.6	44.3	68.7	73.8	66.1
7/4/2016	1:52:00 PM	60.6	79.8	52.9	62.2		69.4	55.8	78.5		90.9	-	58.0	62.8	-	48.1	58.8	44.1	69.1	77.0	66.1
7/4/2016	1:53:00 PM	58.3	69.3	53.3	58.7		65.8	53.9	81.4		91.2	-	61.0	69.6	-	46.3	50.3	44.1	85.6	98.8	65.4
7/4/2016	1:54:00 PM	55.6	67.3	53.1	59.6		67.9	52.6	81.1		92.8	-	57.6	61.9	-	46.5	53.9	44.2	77.9	94.5	66.2
7/4/2016	1:55:00 PM	54.0	57.1	52.0	60.4		70.3	54.2	77.8		91.2	-	58.9	67.7	-	47.0	51.4	44.5	68.7	73.1	65.4
7/4/2016	1:56:00 PM	53.5	57.1	52.0	64.3		78.5	53.3	74.5		83.5	-	58.1	62.9	-	46.9	53.5	44.4	68.5	75.6	66.0
7/4/2016	1:57:00 PM	55.0	59.8	53.1	54.2		60.4	50.0	73.0		86.9	-	58.9	69.8	-	47.9	51.3	45.1	68.4	73.7	65.2
7/4/2016	1:58:00 PM	55.1	59.4	52.0	56.0		65.9	49.5	75.8		90.7	-	59.0	69.2	-	46.7	51.4	44.3	68.2	71.8	65.9
7/4/2016	1:59:00 PM	53.6	60.9	52.0	66.7		72.7	57.8	76.5		90.0	-	58.1	69.0	-	46.1	50.4	44.4	68.2	75.1	65.6
7/4/2016	2:00:00 PM	54.1	60.0	52.5	63.0	61.4	68.2	57.0	69.4	71.5	80.3	-	57.3	61.0	-	46.4	50.8	44.3	68.2	72.1	65.7
7/4/2016	2:01:00 PM	53.9	60.4	52.6	61.4		67.3	55.1	73.0		82.7	-	56.9	63.4	-	46.8	50.7	44.3	68.1	73.7	64.9
7/4/2016	2:02:00 PM	54.4	62.4	52.6	57.0		64.0	52.0	68.1		77.6	-	57.0	61.3	-	47.5	50.6	45.3	68.6	74.2	65.8
7/4/2016	2:03:00 PM	54.1	56.4	52.6	57.1		61.3	52.3	67.3		76.0	-	56.5	60.3	-	46.4	50.7	44.0	68.8	72.8	65.7
7/4/2016	2:04:00 PM	54.7	73.2	48.6	56.1		61.3	52.3	69.3		82.1	-	58.2	68.4	-	45.5	50.0	43.2	68.3	74.9	65.5
7/4/2016	2:05:00 PM	56.5	71.4	50.9	55.7		59.1	53.3	68.2		78.5	-	57.2	66.0	-	47.1	51.7	44.0	69.3	76.3	66.3
7/4/2016	2:06:00 PM	56.6	65.7	52.1	63.8		77.0	53.1	68.4		77.5	-	58.8	67.0	-	47.1	59.3	44.8	68.3	75.3	64.3
7/4/2016	2:07:00 PM	54.6	70.5	50.8	58.4		67.5	53.8	68.2		78.5	-	58.1	62.9	-	46.8	48.9	44.3	68.6	72.3	65.5
7/4/2016	2:08:00 PM	57.1	77.4	49.0	58.5		66.0	54.3	68.2		79.9	-	57.6	63.6	-	46.6	52.6	44.1	68.8	74.6	66.1
7/4/2016	2:09:00 PM	51.4	57.5	48.1	60.6		67.8	55.3	69.6		82.0	-	56.9	64.7	-	46.4	54.2	44.1	68.9	74.7	65.4
7/4/2016	2:10:00 PM	53.9	58.1	49.0	56.9		60.7	53.7	71.1		84.1	-	58.0	66.0	-	45.8	52.2	43.3	69.0	75.0	66.7
7/4/2016	2:11:00 PM	50.3	56.5	47.1	56.9		62.5	51.8	70.4		80.1	-	56.7	63.6	-	45.5	51.6	43.4	68.7	75.9	65.4
7/4/2016	2:12:00 PM	50.5	57.7	47.5	56.4		68.8	51.5	71.3		76.7	-	58.7	70.6	-	47.2	53.9	44.0	68.4	74.0	65.2
7/4/2016	2:13:00 PM	52.3	55.9	49.2	72.7		82.8	59.0	71.5		76.1	-	56.3	62.4	-	46.8	51.2	43.9	68.6	72.5	66.1
7/4/2016	2:14:00 PM	58.3	68.6	51.6	56.4		64.0	51.8	69.0		77.7	-	57.7	67.2	-	46.8	52.6	44.5	68.6	72.1	65.9
7/4/2016	2:15:00 PM	59.0	71.2	51.0	57.4		62.0	51.9	69.3		77.1	-	57.5	63.5	-	46.9	58.3	44.6	68.6	73.9	66.1
7/4/2016	2:16:00 PM	57.1	70.7	49.8	56.8	

7/4/2016	2:33:00 PM	58.8	70.7	54.2	59.5		66.0	53.8	71.2		75.8	-	57.9	64.1	-	46.4	50.8	43.9	69.9	77.6	67.1
7/4/2016	2:34:00 PM	54.4	57.4	52.8	58.2		66.3	52.0	71.9		78.3	-	57.2	60.6	-	46.7	55.0	43.6	69.0	75.1	66.2
7/4/2016	2:35:00 PM	54.8	59.7	53.0	54.4		65.5	51.3	69.3		75.6	-	57.4	70.8	-	47.0	52.8	43.8	69.7	77.2	66.3
7/4/2016	2:36:00 PM	53.9	56.9	52.4	55.8		59.3	52.4	71.2		77.4	-	58.1	66.3	-	47.0	53.3	44.3	69.1	75.8	66.0
7/4/2016	2:37:00 PM	52.7	56.4	47.9	60.0		64.8	56.1	71.5		84.6	-	57.7	65.9	-	46.2	51.9	44.1	69.2	77.4	66.8
7/4/2016	2:38:00 PM	51.7	57.2	48.3	61.1		65.8	57.3	70.9		77.4	-	60.1	71.5	-	47.7	51.8	44.3	68.6	71.8	66.4
7/4/2016	2:39:00 PM	50.6	59.1	46.5	62.2		71.1	56.5	72.1		79.5	-	57.5	66.6	-	45.6	49.3	43.2	68.3	74.9	65.2
7/4/2016	2:40:00 PM	51.4	59.4	48.6	61.3		67.1	55.5	70.4		78.8	-	57.6	66.2	-	46.3	52.9	43.8	68.5	73.6	65.8
7/4/2016	2:41:00 PM	63.3	78.8	46.9	58.6		65.3	53.8	71.7		81.9	-	59.0	69.7	-	46.4	52.1	43.8	69.2	73.6	66.7
7/4/2016	2:42:00 PM	54.3	63.3	51.0	57.8		64.3	53.3	72.8		81.9	-	58.3	68.7	-	45.6	52.4	43.6	69.2	74.0	66.7
7/4/2016	2:43:00 PM	53.8	54.9	52.7	58.3		63.3	53.9	71.2		78.8	-	57.3	64.8	-	46.2	53.3	43.7	69.0	74.2	66.1
7/4/2016	2:44:00 PM	54.7	58.2	53.2	57.6		64.7	53.5	72.3		78.9	-	56.8	62.2	-	45.7	54.0	43.2	70.0	75.4	66.7
7/4/2016	2:45:00 PM	54.3	56.8	53.0	55.2		62.6	52.2	71.5		80.1	-	57.0	62.0	-	45.5	48.8	43.3	68.2	74.0	65.6
7/4/2016	2:46:00 PM	54.5	58.0	53.0	60.6		69.9	53.0	73.1		80.1	-	58.2	63.3	-	45.4	49.1	43.3	69.0	75.5	66.0
7/4/2016	2:47:00 PM	54.6	57.5	53.4	56.5		64.9	52.6	71.6		81.2	-	57.1	61.5	-	45.3	47.3	43.1	69.3	75.4	65.8
7/4/2016	2:48:00 PM	54.8	57.9	53.3	61.7		71.1	53.2	72.5		84.5	-	57.2	63.4	-	45.1	50.7	42.9	69.8	77.1	66.5
7/4/2016	2:49:00 PM	54.8	57.5	53.1	57.9		60.9	54.7	71.5		80.8	-	56.3	60.6	-	46.3	52.0	43.6	68.4	72.8	66.3
7/4/2016	2:50:00 PM	55.2	60.5	50.3	58.8		62.1	56.4	71.2		81.5	-	57.4	63.2	-	46.3	56.4	43.6	68.9	76.2	66.4
7/4/2016	2:51:00 PM	52.5	59.9	47.7	63.8		71.2	56.9	72.7		82.3	-	56.8	67.0	-	47.4	60.5	44.1	69.1	76.7	66.0
7/4/2016	2:52:00 PM	49.2	52.9	46.5	63.9		75.9	56.5	72.6		86.8	-	56.7	60.5	-	47.8	50.9	45.0	69.2	74.7	65.6
7/4/2016	2:53:00 PM	52.3	63.1	47.5	60.7		68.1	56.8	71.8		77.4	-	57.5	65.2	-	46.6	51.4	44.2	68.9	74.5	66.7
7/4/2016	2:54:00 PM	52.6	60.0	47.2	61.5		66.6	56.5	72.8		81.7	-	60.1	70.7	-	45.0	48.4	42.8	68.8	72.2	66.6
7/4/2016	2:55:00 PM	53.5	58.9	48.5	65.9		70.5	61.6	72.3		82.1	-	56.9	61.8	-	44.9	52.4	43.0	68.2	71.5	66.1
7/4/2016	2:56:00 PM	54.3	58.2	52.9	66.1		70.8	57.9	71.0		84.1	-	57.4	63.0	-	45.4	50.9	43.1	68.5	73.2	65.9
7/4/2016	2:57:00 PM	54.4	59.2	52.7	61.9		73.8	54.4	71.5		83.3	-	57.6	69.2	-	45.2	48.6	43.3	68.8	73.0	66.4
7/4/2016	2:58:00 PM	59.6	69.5	53.9	59.9		65.3	55.9	68.9		80.1	-	56.4	62.0	-	45.5	51.5	43.5	69.1	73.5	66.5
7/4/2016	2:59:00 PM	57.8	68.2	53.9	60.3		65.4	56.1	71.9		89.5	-	55.7	66.3	-	45.0	49.1	42.9	68.7	72.3	65.5
7/4/2016	3:00:00 PM	57.0	67.0	53.3	56.9	61.3	61.5	53.9	71.7	72.7	82.3	-	55.6	59.7	-	45.7	49.9	43.3	68.7	72.1	66.3
7/4/2016	3:01:00 PM	54.9	57.3	53.3	57.7		60.8	55.3	71.4		82.1	-	57.4	62.8	-	46.6	50.4	43.4	69.2	76.6	66.3
7/4/2016	3:02:00 PM	55.2	57.2	53.3	56.8		61.5	53.1	72.0		80.4	-	57.0	60.3	-	46.9	51.4	43.8	70.5	75.4	66.8
7/4/2016	3:03:00 PM	55.3	57.7	53.7	53.6		56.0	51.2	71.6		80.5	-	57.6	62.8	-	45.7	51.2	43.1	68.6	75.7	65.4
7/4/2016	3:04:00 PM	52.4	57.3	48.8	54.0		58.5	51.5	72.9		82.4	-	57.7	67.1	-	46.2	54.7	44.0	68.7	73.8	66.2
7/4/2016	3:05:00 PM	50.6	61.0	47.7	54.4		56.7	52.7	73.9		86.8	-	57.5	63.6	-	45.0	47.2	43.1	68.8	74.3	66.1
7/4/2016	3:06:00 PM	50.6	57.4	47.5	59.5		68.5	54.1	73.3		80.6	-	56.3	62.5	-	44.9	48.9	42.8	68.5	73.2	66.5
7/4/2016	3:07:00 PM	50.1	54.0	47.9	61.8		70.1	54.8	76.0		87.1	-	57.0	65.4	-	45.6	51.8	43.3	70.1	75.8	67.0
7/4/2016	3:08:00 PM	53.0	57.6	48.1	66.1		73.1	57.8	73.5		81.6	-	58.3	64.8	-	45.5	48.5	42.4	69.5	73.6	67.1
7/4/2016	3:09:00 PM	56.5	59.1	54.7	58.9		65.5	54.5	73.5		89.4	-	57.1	66.4	-	45.4	50.7	43.0	69.1	74.3	66.6
7/4/2016	3:10:00 PM	59.1	64.0	55.3	59.6		62.9	56.9	75.1		86.0	-	56.3	65.6	-	45.7	53.0	42.9	68.8	75.1	66.1
7/4/2016	3:11:00 PM	56.0	60.8	53.9	59.4		63.8	56.2	72.4		80.4	-	57.4	62.2	-	45.6	53.9	42.4	68.8	74.6	66.5
7/4/2016	3:12:00 PM	54.8	56.8	53.3	65.3		76.5	56.7	75.1		84.1	-	58.0	63.3	-	45.7	53.3	42.9	68.8	76.7	66.3
7/4/2016	3:13:00 PM	55.4	59.0	52.9	61.6		74.9	53.2	76.5		83.6	-	56.5	61.8	-	48.0	55.4	43.6	69.0	73.3	67.1
7/4/2016	3:14:00 PM	54.2	66.9	52.5	56.9		64.7	51.9	75.0		80.1	-	57.0	67.0	-	44.7	52.2	42.6	68.7	73.3	66.2
7/4/2016	3:15:00 PM	57.5	67.0	53.1	59.7		66.6	54.3	74.4		83.0	-	57.3	64.8	-	45.8	55.1	43.4	68.7	73.4	66.5
7/4/2016	3:16:00 PM	54.6	60.9	48.4	58.8		63.3	55.7	71.0		80.5	-	56.6	63.9	-	46.4	54.4	43.4	69.3	72.7	66.5
7/4/2016	3:17:00 PM	51.0	62.3	47.3	58.2		66.2	53.6	73.4		81.4	-	56.3	62.0	-	44.8	49.5	43.0	68.6	72.4	66.7
7/4/2016	3:18:00 PM	50.1	64.2	46.7	61.5		70.9	51.7	70.1		78.9	-	58.2	66.7	-	44.8	47.8	42.9	69.3	76.3	66.4
7/4/2016	3:19:00 PM	51.7	55.2	48.3	60.8		71.3	55.1	74.4		81.3	-	58.7	71.1	-	45.8	56.3	43.5	69.1	78.4	65.9
7/4/2016	3:20:00 PM	53.8	64.8	49.6	55.2		60.4	52.1	73.7		85.0	-	60.9	69.9	-	46.2	61.0	42.6	69.0	72.8	66.3
7/4/2016	3:21:00 PM	55.8	62.3	50.7	59.3		66.7	52.0	74.2		83.4	-	63.0	76.4	-	45.6	51.9	43.0	68.7	73.1	66.1
7/4/2016	3:22:00 PM	58.6	64.0	54.4	58.6		66.7	53.4	73.7		83.3	-	55.1	59.1	-	46.0	59.8	43.5	68.4	72.8	65.1
7/4/2016	3:23:00 PM	55.7	59.1	53.9	60.5		68.2	54.4	70.1		82.3	-	55.6	64.0	-	45.1	50.6	43.0	68.4	73.1	65.5
7/4/2016	3:24:00 PM	55.8	57.7	53.9	60.8		65.9	56.2	69.0		80.7	-	57.8	64.2	-	46.7	52.0	43.6	69.1	79.3	66.5
7/4/2016	3:25:00 PM	55.7	62.8	53.3	55.2		60.4	51.8	70.5		82.1	-	57.8	68.7	-	47.5	50.7	44.3	68.4	71.8	66.3
7/4/2016	3:26:00 PM	55.3	60.5	53.3	52.2		56.2	50.3	66.3		76.6	-	57.7	63.7	-	48.5	56.4	44.1	68.5	73.4	66.0
7/4/2016	3:27:00 PM	56.9	66.4	53.2	55.8		62.1	51.3	71.8		85.5	-	58.1	64.6	-	47.2	54.0	43.7	68.5	75.9	66.3
7/4/2016	3:28:00 PM	57.8	65.2	53.5	56.4		65.0	50.9	70.5		85.7	-	57.3	66.6	-	46.7	51.8	44.0	69.1	81.2	66.8
7/4/2016	3:29:00 PM	65.6	79.1	50.6	52.4		54.9	50.1	75.6		86.1	-	58.6	67.3	-	46.4	51.4	44.5	69.1	78.3	66.6
7/4/2016	3:30:00 PM	50.9	54.1	47.8	53.0		58.0	50.3	71.0		84.7	-	66.5	77.0	-	47.3	53.4	44.5	69.3	76.0	66.4
7/4/2016	3:31:00 PM	50.5	53.7	48.0	56.4		60.8	53.1	69.3		79.4	-	58.2	63.6	-	47.4	58.9	44.7	69.7	77.2	66.7
7/4/2016	3:32:00 PM	49.6	53.5	47.1	69.1		84.0	55.2	67.4		78.2	-	57.3	67.2	-	49.8	57.7	44.0	68.7	74.3	66.1
7/4/2016	3:33:00 PM	56.4	72.8	51.8	58.0		65.4	53.3	69.1		79.3	-	57.3	60.7	-	47.4	54.8	43.2	68.5	71.5	66.9
7/4/2016	3:34:00 PM	57.8	69.1	54.7	59.8		69.6	52.9	69.1		79.6	-	58.6	69.7	-	46.2	49.1	43.8	68.7	74.0	66.4
7/4/2016	3:35:00 PM	60.2	80.1	54.1	57.8		66.3	53.5	69.4		81.5	-	56.1	62.5	-	45.7	49.6	43.0	68.7	73.3	66.5
7/4/2016	3:36:00 PM	55.7	58.8	54.1	54.8		60.2	52.0	67.8		77.4	-	55.8	58.4	-	45.4	53.9	42.7	68.3	72.7	65.7
7/4/2016	3:37:00 PM	55.1	59.1	53.4	59.3		66.4	52.1	69.4		80.8	-	56.4	61.3	-	44.9	48.9	42.8	68.9	72.4	67.1
7/4/2016	3:38:00 PM	54.3	57.6	53.3	72.4		82.5	53.4	75.1		87.9	-	55.6	61.5	-	45.4	52.5	43.5	68.3	72.9	65.6
7/4/2016	3:39:00 PM	54.4	58.0	52.9	58.9		68.6	53.6	70.1		79.4	-	56.3	58.8	-	44.5	46.9	42.6	69.3	74.3	66.9
7/4/2016	3:40:00 PM	54.4	61.3	52.5	62.4		66.7	58.5	68.1		73.8	-	57.9	67.9	-	44.8	52.2	42.8	69.2	76.7	66.8
7/4/2016	3:41:00 PM	54.0	57.8	51.7	62.8		69.1	57.3	73.6		91.0	-	56.2	62.6	-	44.7	53.8	42.6	68.9	74.7	66.3
7/4/2016	3:42:00 PM	51.2	58.1	47.5	63.8		69.9	56.5	72.8		85.1	-	58.1	64.1	-	44.2	46.3	42.1	69.0	74.2	66.9
7/4/2016	3:43:00 PM	51.2	56.2	47.7	58.4		65.1	53.9	74.6		89.4	-	58.7	68.8	-	45.4	52.7	43.5	69.3	74.8	66.7
7/4/2016	3:44:00 PM	53.0	57.9	48.0	55.5		59.5	52.5	74.3		86.8	-	56.3	63.6	-	45.0	47.3	43.2	69.5	78.4	67.1
7/4/2016	3:45:00 PM	51.9	59.5	48.5	57.3		61.6	53.8	76.3		87.2	-	56.0	58.0	-	45.2	50.4	42.7	69.3	72.6	66.9
7/4/2016	3:46:00 PM	51.4	58.0	47.9	55.8		61.9	52.3	69.9		83.8	-	57.3	63.5	-	45.9	56.6	43.3	69.3	75.9	66.9
7/4/2016	3:47:00 PM	55.2	58.2	54.1	55.7		59.7	52.8	68.5		81.0	-	56.5	62.1	-	44.1	46.0	42.2	70.4	74.0	67.2
7/4/2016	3:48:00 PM	55.6	58.7	54.0	55.8		58.4	53.4	68.4		80.0	-	56.6	61.8	-	43.9	46.8	41.9	70.0	75.1	67.5
7/4/2016	3:49:00 PM	56.6	63.2	54.2	54.9		57.7	52.6	67.9		82.4	-	57.5	61.0	-	44.7	48.7	42.7	69.6	74.3	67.0
7/4/2016	3:50:00 PM	55.1	59.6	53.6	60.8		67.6	55.1	67.6		77.2	-	55.9	65.2	-	44.6	49.6	42.9	69.4	76.0	65.9
7/4/2016	3:51:00 PM	54.2	56.8	53.1	55.0		59.0	52.7	68.8		82.7	-	56.6	63.1	-	44.8	48.1	42.7	69.8	76.1	67.5
7/4/2016	3:52:00 PM	54.2	58.2	52.8	55.9		62.9	52.5	69.1		82.9	-	56.4	62.7	-	45.1	53.5	43.3	70.2	81.4	66.9
7/4/2016	3:53:00 PM	55.3	62.9	53.0	58.0		65.9	54.6	70.0		81.6	-	56.7	66.3	-	45.2	49.1	42.6	70.6	83.2	67.2
7/4/2016	3:54:00 PM	53.9	57.7	50.7	61.4		67.8	55.9	71.6		90.2	-	56.5	65.0	-	45.1	54.6	42.4	70.5	82.4	67.7
7/4/2016	3:55:00 PM	51.9	56.8	47.8	60.8		66.2	54.7	73.5		86.9	-	58.3	65.6	-	43.8	46.1	41.9	69.7	76.5	66.9
7/4/2016	3:56:00 PM	49.2	54.9	46.3	66.8		75.3	55.0	75.1		88.0	-	57.2	64.1	-	44.2	54.7	42.0	69.8	76.3	66.8
7/4/2016	3:57:00 PM	54.8	64.3	46.2	65.1		75.0	57.0	68.1		83.1	-	56.2	61.7	-	45.5	54.0	43.0	71.6	81.0	66.8
7/4/2016	3:58:00 PM	49.2	57.3	45.5	60.6		67.2	55.6	79.1		95.1	-	56.3	61.3	-	45.4	58.1	42.1	70.0	75.0	66.9
7/4/2016	3:59:00 PM	52.3	60.1	48.0	58.6		65.1	54.7	67.3		80.2	-	56.9	63.1	-	45.9	54.8	42.8	69.6	73.9	66.7
7/4/2016	4:00:00 PM	54.1	58.3	52.5	57.1	60.7	61.4	53.8	66.8	71.7	80.1	-	56.7	60.7	-	45.3	53.4	42.7	70.2	76.3	67.3
7/4/2016	4:01:00 PM	55.1	57.6	53.3	59.0		63.2	54.7	75.2		93.3	-	57.3	65.2	-	44.6	46.7	42.7	69.6	74.1	66.6
7/4/2016	4:02:00 PM	55.7	67.2	52.8	56.1		61.4	53.7	72.0		83.8	-	58.2	65.7	-	44.3	46.6	42.1	70.1	77.5	67.1
7/4/2016	4:03:00 PM	56.5	64.9	52.8	61.0		66.3	54.9	72.9		87.6	-	58.1	64.0	-	46.0	52.8	43.4	70.4	78.1	67.2
7/4/2016	4:04:00 PM	53.9	58.6	52.8	62.2		66.6	58.2	74.2		87.1	-	57.8	63.3	-	45.1	47.7	42.9	70.0	74.0	67.7
7/4/2016	4:05:00 PM	56.4	66.6	53.9	59.4		65.5	53.8	70.9		85.1	-	58.3	69.4	-	45.5	51.9	42.8	70.6	81.7	67.5
7/4/2016	4:06:00 PM	57.4	66.8	53.5	53.8		56.7	51.5	72.5		88.1	-	58.0	61.6	-	44.9	50.7	42.4	68.7	76.9	66.1
7/4/2016	4:07:00 PM	68.0	81.1	54.2	56.4		65.4	51.4	73.9		85.5	-	57.4	62.5	-	45.2	51.8	42.3	69.7	79.0	66.6
7/4/2016	4:08:00 PM	51.8	58.2	48.9	56.2		60.0	53.2	69.7		79.0	-	61.4	71.2	-	45.8	52.6	42.7	69.1	78.9	66.1
7/4/2016	4:09:00 PM	53.2	59.0	49.9	57.8		63.9	52.3	69.8		87.0	-	59.0	65.7	-	45.5	48.7	42.9	69.3	77.1	67.1
7/4/2016	4:10:00 PM	54.1	59.5	48.1	65.4		72.1	53.1	68.5		79.5	-	57.4	67.2	-	45.1	53.1	42.0	70.1	79.5	67.3
7/4/2016	4:11:00 PM	51.0	55.7	48.6	61.5		68.7	57.5	72.1		82.2	-	58.8	70.2	-	45.8	55.8	43.0	70.7	82.0	67.1
7/4/2016	4:12:00 PM	52.5	58.9	47.8	56.3		61.8	51.6	76.4		87.1	-	56.7	59.9	-	45.7	53.7	43.0	70.1	76.4	66.7
7/4/2016	4:13:00 PM	54.5	58.3	52.6	54.7		58.6	52.0	75.8		90.2	-	57.2	61.5	-	48.7	58.0	43.4	68.8	72.8	65.9
7/4/2016	4:14:00 PM	55.6	59.1	53.3	60.1		67.6	52.4	78.3		92.4	-	56.7	62.5	-	48.0	55.9	43.4	69.7	77.3	66.8
7/4/2016	4:15:00 PM	54.4	56.8	52.9	57.4		64.3	53.5	70.8		85.5	-	56.7	59.5	-	45.2	47.6	43.4	69.9	79.3	67.1
7/4/2016	4:16:00 PM	54.3	56.5	52.7	61.3		73.6	53.4	71.6		86.2	-	56.7	61.3	-	46.3	49.8	43.2	70.1	76.9	67.2
7/4/2016	4:17:00 PM	53.3	57.3	52.1	57.0		62.5	52.1	72.2		84.3	-	57.6	63.7	-	44.3	47.0	42.0	70.3	78.4	67.0
7/4/2016	4:18:00 PM	54.4	57.0	52.3	57.3		62.8	53.8	74.6		87.9	-	56.9	61.4	-	45.4	51.6	43.0	70.0	75.2	67.7
7/4/2016	4:19:00 PM	54.3	58.2	52.8	55.2		59.1	53.2	73.5		88.9	-	59.0	69.9	-	44.7	48.6	42.6	70.2	75.6	67.0
7/4/2016	4:20:00 PM	54.1	60.0	52.4	56.6		66.5	52.4	72.2		86.7	-	56.8	60.6	-	45.1	55.1	42.7	70.0	77.7	67.1
7/4/2016	4:21:00 PM	53.1	59.7	50.1	59.6		64.8	56.3	71.0		80.0	-	57.9	66.2	-	44.7	47.2	42.9	69.6	74.5	67.0
7/4/2016	4:22:00 PM	50.2	53.3	47.9	63.0		66.5	59.6	70.6		83.5	-	56.1	60.3	-	46.3	51.1	43.2	69.3	74.9	67.0
7/4/2016	4:23:00 PM	49.3	55.1	46.8	59.3		63.5	55.5	70.2		80.3	-	57.4	61.2	-	49.0	65.1	42.8	70.1	74.2	67.8
7/4/2016	4:24:00 PM	49.3	54.1	47.0	62.1		68.0	54.7	69.6		85.0	-	57.2	62.8	-	44.6	49.3	42.6	70.1	74.3	67.5
7/4/2016	4:25:00 PM	50.0	54.1	47.2	55.8		58.6	53.1	66.8		81.0	-	56.2	58.5	-	44.1	50.8	41.9	69.3	73.8	66.8
7/4/2016	4:26:00 PM	53.4	57.7	46.4	60.9		71.7	53.6	68.7		85.2	-	56.1	59.5	-	44.6	48.2	42.3	69.8	78.3	66.8
7/4/2016	4:27:00 PM	58.9	74.2	54.1	62.3		68.7	55.1	67.2		81.8	-	57.0	64.2	-	43.9	47.3	42.0	69.7	72.7	67.4
7/4/2016	4:28:00 PM	56.9	70.4	53.0	68.4		77.6	61.3	70.7		82.6	-	58.3	67.1	-	44.3	49.3	42.3	69.6	73.0	67.4
7/4/2016	4:29:00 PM	55.9	60.3	53.3	66.3		72.2	58.0	67.2		81.1	-	55.8	62.8	-	45.2	53.0	42.6	69.4	75.8	66.3
7/4/2016	4:30:00 PM	55.6	63.9	53.1	60.1		69.8	55.1	71.0		86.0	-	56.9	62.8	-	45.9	51.1	42.4	69.2	72.8	67.1
7/4/2016	4:31:00 PM	54.5	61.9	52.5	61.2		71.5	53.4	71.5		81.8	-	56.8	61.4	-	58.0	67.5	44.7	69.4	72.7	67.5
7/4/2016	4:32:00 PM	53.3	57.5	52.2	53.3		58.2	50.6	70.9		78.6	-	58.6	63.4	-	58.8	64.4	47.8	69.6	74.7	67.2
7/4/2016	4:33:00 PM	53.5	55.6	52.4	60.9		68.9	55.3	73.5		88.0	-	57.7	62.9	-	47.7	54.6	43.5	69.6	75.1	67.2
7/4/2016	4:34:00 PM	53.3	55.2	52.0	61.2		66.6	54.6	70.7		83.0	-	59.0	67.0	-	45.3	52.5	42.6	73.6	93.6	67.1
7/4/2016	4:35:00 PM	53.5	59.3	48.3	55.1		59.5	52.5	73.8		84.4	-	59.0	67.4	-	44.9	53.9	42.4	69.2	75.0	66.6
7/4/2016	4:36:00 PM	49.7	55.0	47.2	57.1		63.2	53.6	73.1		86.7	-	58.9	69.1	-	46.4	52.5	43.5	69.4	72.8	66.8
7/4/2016	4:37:00 PM	48.9	56.2	46.2	55.2		59.7	52.0	68.7		80.0	-	64.2	77.7	-	46.1	50.3	43.1	69.9	75.8	67.1
7/4/2016	4:38:00 PM	49.4	57.1	47.3	59.0		65.9	54.3	71.8		85.2	-	79.5	95.0	-	46.1	49.4	43.9	69.7	75.3	66.8
7/4/2016	4:39:00 PM	50.4	56.9	46.9	54.7		57.6	51.9	68.9		77.8	-	73.7	90.7	-	46.5	56.8	43.7	70.3	75.8	67.2
7/4/2016	4:40:00 PM	55.2	67.9	47.2	59.6		72.4	52.7	67.0		83.9	-	62.3	75.1	-	45.8	50.3	43.1	70.8	77.6	68.4
7/4/2016	4:41:00 PM	54.9	60.9	53.5	67.8		77.5	55.6	68.3		84.1	-	56.1	61.0	-	45.2	49.7	43.3	70.5	79.2	67.4
7/4/2016	4:42:00 PM	54.3	60.2	52.4	62

7/4/2016	4:59:00 PM	55.9	65.9	52.5	55.8		60.8	52.1	69.1		80.9	-	56.7	67.7	-	46.0	52.9	43.6	71.1	77.0	68.6
7/4/2016	5:00:00 PM	54.4	62.8	52.2	55.4	60.3	58.7	53.4	66.8	75.4	75.0	-	56.6	63.7	-	45.1	47.7	42.9	70.1	76.9	67.5
7/4/2016	5:01:00 PM	57.4	70.0	52.1	54.3		57.7	52.4	68.7		80.7	-	59.4	72.0	-	45.1	48.7	42.9	69.9	76.4	67.5
7/4/2016	5:02:00 PM	53.4	60.7	52.2	61.1		70.3	52.7	71.2		86.2	-	58.9	69.7	-	45.2	51.0	42.0	69.7	74.4	67.5
7/4/2016	5:03:00 PM	50.1	59.8	45.8	59.4		68.2	55.0	69.8		80.2	-	56.2	63.8	-	46.6	51.0	44.1	69.6	78.9	67.3
7/4/2016	5:04:00 PM	52.8	60.0	46.3	59.2		68.7	55.9	69.9		83.8	-	56.1	63.0	-	46.6	51.8	43.6	70.3	76.8	67.2
7/4/2016	5:05:00 PM	53.5	64.8	47.1	59.4		69.7	52.5	69.6		78.6	-	56.0	65.6	-	46.6	51.6	43.6	70.5	75.7	67.6
7/4/2016	5:06:00 PM	51.1	59.3	47.7	55.6		65.0	51.9	69.6		82.4	-	55.6	58.0	-	45.4	49.7	42.8	71.3	76.3	68.1
7/4/2016	5:07:00 PM	53.4	60.0	47.2	56.9		64.6	53.2	71.0		85.8	-	55.7	60.6	-	47.0	54.3	43.2	72.3	77.6	68.1
7/4/2016	5:08:00 PM	54.9	61.1	53.4	57.2		60.9	54.9	72.8		86.7	-	57.1	65.2	-	48.2	54.9	44.2	72.3	76.4	68.7
7/4/2016	5:09:00 PM	54.7	58.6	52.7	56.4		62.0	52.5	71.8		84.2	-	58.1	66.2	-	45.6	54.3	43.4	72.1	76.7	68.7
7/4/2016	5:10:00 PM	54.3	61.7	52.5	55.8		58.7	53.1	73.9		89.5	-	56.9	62.1	-	46.2	54.4	43.9	71.6	76.7	67.9
7/4/2016	5:11:00 PM	54.2	58.7	52.5	57.8		64.3	53.6	74.4		86.1	-	57.2	65.1	-	46.4	50.3	43.7	72.0	77.5	69.3
7/4/2016	5:12:00 PM	54.7	57.8	52.8	56.8		67.8	53.1	73.7		85.6	-	56.3	61.9	-	45.4	51.2	43.2	71.6	78.4	67.7
7/4/2016	5:13:00 PM	54.6	67.7	52.6	59.5		72.5	52.3	73.1		85.8	-	57.4	66.4	-	45.8	57.2	43.6	70.0	74.7	67.7
7/4/2016	5:14:00 PM	54.6	62.9	52.4	54.7		57.3	52.6	76.2		87.8	-	56.0	61.9	-	45.1	49.1	42.8	69.5	75.1	66.8
7/4/2016	5:15:00 PM	53.6	59.6	51.9	55.6		65.5	51.6	76.7		90.8	-	55.4	57.9	-	44.7	48.1	42.7	69.9	74.5	66.7
7/4/2016	5:16:00 PM	53.0	57.6	47.3	59.1		64.6	52.7	73.2		86.4	-	57.3	60.7	-	45.4	52.7	43.1	72.1	81.8	69.0
7/4/2016	5:17:00 PM	50.9	58.7	46.8	59.9		66.2	54.9	78.1		94.4	-	57.0	64.5	-	45.9	48.9	43.7	71.4	79.4	68.8
7/4/2016	5:18:00 PM	55.5	72.2	47.1	66.9		73.8	58.1	75.3		89.8	-	55.3	60.3	-	45.6	48.1	43.6	71.0	74.7	68.3
7/4/2016	5:19:00 PM	52.0	62.6	48.7	59.9		65.3	54.2	76.4		92.0	-	57.1	66.4	-	45.1	48.0	43.1	71.6	79.3	67.4
7/4/2016	5:20:00 PM	51.4	58.9	47.9	56.3		59.7	53.9	72.0		89.1	-	55.1	60.6	-	47.4	66.5	42.6	71.7	74.7	68.4
7/4/2016	5:21:00 PM	55.1	59.7	53.5	62.2		71.5	54.0	74.8		89.0	-	55.8	60.0	-	45.3	49.1	43.0	72.6	83.1	69.3
7/4/2016	5:22:00 PM	55.7	57.9	53.8	61.3		68.3	55.7	75.1		86.7	-	56.5	67.9	-	46.7	57.6	44.2	71.6	76.1	68.2
7/4/2016	5:23:00 PM	55.3	64.7	52.9	62.1		67.5	56.0	75.4		88.0	-	56.2	59.9	-	46.7	49.6	44.3	71.8	75.5	68.8
7/4/2016	5:24:00 PM	55.7	59.2	53.6	59.1		64.1	54.2	73.2		83.6	-	58.5	74.0	-	46.5	52.1	43.7	71.6	75.8	69.0
7/4/2016	5:25:00 PM	54.5	56.4	52.4	56.4		62.9	53.0	72.3		88.7	-	56.0	62.2	-	46.0	49.2	43.2	71.5	75.5	68.9
7/4/2016	5:26:00 PM	54.8	58.7	52.9	57.0		60.9	53.8	71.5		87.5	-	55.6	59.4	-	46.9	54.3	43.8	70.9	77.6	67.9
7/4/2016	5:27:00 PM	54.5	56.7	52.6	61.9		72.4	54.2	85.8		95.7	-	56.0	57.9	-	45.8	49.6	43.7	71.0	74.5	68.5
7/4/2016	5:28:00 PM	54.4	57.8	52.8	62.2		68.9	54.4	81.8		94.5	-	56.5	59.6	-	45.5	48.4	43.3	70.2	77.7	67.2
7/4/2016	5:29:00 PM	54.3	57.9	52.2	59.1		64.7	53.9	73.6		86.6	-	57.4	62.6	-	47.2	51.4	44.3	72.0	76.8	68.8
7/4/2016	5:30:00 PM	54.0	59.4	52.4	56.1		60.1	53.0	79.9		94.7	-	56.5	60.8	-	46.1	49.7	43.4	71.4	77.3	69.3
7/4/2016	5:31:00 PM	58.2	73.6	52.7	58.5		61.1	55.2	75.8		86.6	-	56.6	61.8	-	47.2	60.5	43.8	72.4	81.0	68.0
7/4/2016	5:32:00 PM	56.9	69.9	52.5	64.2		72.3	56.8	75.5		88.7	-	57.3	68.4	-	46.9	55.9	43.7	71.2	75.4	68.4
7/4/2016	5:33:00 PM	54.4	58.7	52.6	59.2		69.6	55.3	72.2		87.4	-	58.9	67.6	-	47.3	56.8	44.0	71.9	75.8	68.7
7/4/2016	5:34:00 PM	51.5	61.1	47.3	58.9		66.2	55.0	73.7		96.2	-	56.5	62.7	-	45.7	50.9	44.0	71.6	75.1	69.1
7/4/2016	5:35:00 PM	51.3	55.3	47.6	61.9		67.2	56.8	74.0		86.9	-	56.7	65.0	-	45.9	52.3	43.4	71.4	75.3	68.7
7/4/2016	5:36:00 PM	50.0	53.2	47.9	64.5		72.4	55.1	72.0		84.2	-	56.5	63.5	-	45.5	50.8	43.1	72.1	77.2	69.8
7/4/2016	5:37:00 PM	49.7	60.0	45.9	59.4		67.7	53.6	75.6		91.9	-	56.9	64.1	-	45.7	51.5	43.0	71.5	75.8	68.9
7/4/2016	5:38:00 PM	54.6	59.2	52.3	61.5		68.1	53.7	74.9		93.3	-	55.7	63.6	-	45.9	49.6	43.5	72.4	78.4	69.7
7/4/2016	5:39:00 PM	57.3	64.5	53.7	62.4		72.4	56.3	72.6		85.6	-	56.0	62.8	-	45.0	47.8	43.0	70.8	77.1	68.0
7/4/2016	5:40:00 PM	54.7	59.8	52.7	59.9		63.2	57.1	69.6		79.9	-	56.1	63.0	-	45.8	48.4	43.5	72.0	75.5	69.0
7/4/2016	5:41:00 PM	53.5	62.0	52.2	67.0		75.6	57.5	79.6		95.6	-	57.4	68.7	-	46.0	48.7	44.0	73.3	78.7	68.1
7/4/2016	5:42:00 PM	53.4	59.8	52.0	62.7		69.5	54.0	72.4		88.4	-	56.6	66.5	-	48.1	52.2	45.1	74.5	78.4	69.3
7/4/2016	5:43:00 PM	53.1	56.3	51.9	53.9		56.2	52.1	78.9		95.7	-	55.8	63.7	-	46.6	49.6	44.3	73.8	77.9	69.3
7/4/2016	5:44:00 PM	54.0	60.5	52.4	53.5		57.2	50.7	73.1		85.9	-	58.3	68.8	-	47.5	50.7	44.6	74.8	79.0	69.0
7/4/2016	5:45:00 PM	54.0	60.8	52.1	57.0		59.6	55.0	80.5		95.1	-	56.5	61.7	-	45.7	52.7	43.7	74.6	78.4	69.6
7/4/2016	5:46:00 PM	53.4	55.6	52.0	63.4		72.1	55.1	73.7		89.2	-	56.5	66.3	-	45.6	48.5	43.3	74.7	77.7	68.6
7/4/2016	5:47:00 PM	54.1	68.1	52.0	58.6		62.5	55.5	72.5		85.6	-	56.4	60.5	-	45.9	51.9	44.1	75.8	80.7	69.2
7/4/2016	5:48:00 PM	54.2	65.9	52.3	57.1		64.4	53.2	75.8		90.4	-	56.8	61.8	-	45.9	49.3	44.1	74.9	80.2	69.5
7/4/2016	5:49:00 PM	55.7	68.6	48.1	65.0		77.3	53.7	70.1		79.7	-	56.0	59.6	-	45.6	51.7	43.4	75.1	78.7	70.5
7/4/2016	5:50:00 PM	48.7	57.3	45.2	56.6		60.3	53.3	73.0		90.5	-	55.9	58.9	-	47.5	55.3	44.0	74.8	78.1	66.9
7/4/2016	5:51:00 PM	48.8	59.8	45.5	57.5		62.6	53.0	70.9		86.4	-	55.7	61.0	-	48.7	64.1	43.1	74.1	79.3	70.2
7/4/2016	5:52:00 PM	50.4	58.9	47.7	53.5		56.3	51.3	72.2		86.5	-	55.8	58.1	-	45.7	50.5	43.4	73.6	77.2	69.9
7/4/2016	5:53:00 PM	52.0	64.3	46.3	56.1		64.4	51.4	70.8		84.1	-	55.9	61.7	-	46.0	49.5	43.9	73.4	76.9	69.3
7/4/2016	5:54:00 PM	57.5	65.9	53.0	57.2		60.7	53.6	69.8		80.5	-	57.4	63.8	-	46.1	49.5	43.6	73.2	76.8	68.9
7/4/2016	5:55:00 PM	54.8	62.3	52.2	59.2		63.0	56.1	71.3		83.7	-	59.2	74.6	-	45.6	48.4	42.9	74.0	82.6	70.2
7/4/2016	5:56:00 PM	53.9	56.9	52.1	59.1		63.3	56.4	70.6		82.8	-	56.2	59.6	-	45.1	50.2	43.0	73.6	80.4	68.5
7/4/2016	5:57:00 PM	53.4	61.5	51.7	63.7		67.4	56.2	72.4		86.4	-	56.3	59.8	-	45.2	53.6	43.3	73.2	76.3	68.2
7/4/2016	5:58:00 PM	54.7	65.5	52.6	57.7		63.7	53.7	74.3		88.4	-	57.2	65.5	-	45.7	49.9	42.9	75.0	84.9	69.3
7/4/2016	5:59:00 PM	55.9	70.5	52.9	58.5		65.5	53.6	70.0		83.7	-	56.1	65.4	-	45.9	49.2	44.1	74.5	80.5	71.3
7/4/2016	6:00:00 PM	55.4	60.7	53.1	54.5	59.1	57.8	52.3	69.4	71.5	79.8	-	56.0	64.0	-	45.6	48.3	43.2	74.6	79.6	71.3
7/4/2016	6:01:00 PM	54.8	58.6	53.2	54.9		59.5	51.7	72.3		92.9	-	55.3	61.2	-	45.7	52.4	43.6	75.3	79.0	69.9
7/4/2016	6:02:00 PM	54.0	56.3	52.7	56.5		60.5	52.3	70.4		81.9	-	55.4	60.3	-	45.1	48.7	42.9	74.6	79.8	71.5
7/4/2016	6:03:00 PM	53.4	56.5	52.3	57.2		73.9	52.2	73.7		85.8	-	55.7	59.5	-	45.2	48.8	43.1	75.4	80.3	71.0
7/4/2016	6:04:00 PM	53.8	58.2	52.3	55.4		70.8	51.9	71.8		85.5	-	57.0	67.7	-	45.5	49.4	43.6	74.5	78.6	69.9
7/4/2016	6:05:00 PM	54.3	57.9	52.3	60.8		69.0	53.6	67.2		76.2	-	56.5	59.4	-	45.9	48.7	43.9	74.0	84.8	68.7
7/4/2016	6:06:00 PM	53.1	57.7	48.5	55.3		59.0	53.1	67.4		77.4	-	55.8	59.4	-	45.9	48.7	43.6	74.5	79.7	69.5
7/4/2016	6:07:00 PM	47.7	53.1	43.5	54.6		57.5	51.8	69.6		81.2	-	56.3	61.6	-	46.0	49.3	43.6	74.5	82.9	69.6
7/4/2016	6:08:00 PM	51.7	60.9	44.4	53.4		58.6	51.4	65.6		76.3	-	57.0	64.9	-	47.0	53.7	43.9	74.4	79.9	69.5
7/4/2016	6:09:00 PM	47.4	53.7	45.3	55.4		61.6	51.7	66.6		78.6	-	56.3	66.0	-	46.2	49.5	43.7	74.9	84.2	69.9
7/4/2016	6:10:00 PM	53.1	58.1	45.3	59.7		64.9	55.6	64.8		75.6	-	56.4	67.5	-	46.2	51.7	43.7	74.3	82.7	68.7
7/4/2016	6:11:00 PM	54.5	56.1	53.3	57.4		60.2	54.4	70.0		82.2	-	57.8	66.0	-	46.4	51.7	43.7	75.7	83.2	71.3
7/4/2016	6:12:00 PM	53.7	55.5	52.4	56.8		61.0	54.8	68.4		80.3	-	54.8	57.4	-	47.0	51.9	44.3	75.4	82.8	71.4
7/4/2016	6:13:00 PM	53.1	56.7	51.8	56.6		59.6	54.1	66.3		77.3	-	54.9	58.4	-	47.5	51.4	44.8	75.5	81.7	71.3
7/4/2016	6:14:00 PM	53.5	57.0	52.3	60.4		64.8	56.6	68.2		79.4	-	55.2	58.9	-	46.4	51.7	43.2	74.2	77.8	69.0
7/4/2016	6:15:00 PM	54.4	60.2	52.3	59.9		65.2	53.4	68.0		80.2	-	56.2	60.4	-	46.5	53.2	43.9	74.7	78.5	68.1
7/4/2016	6:16:00 PM	53.5	57.7	52.3	54.0		57.9	50.0	68.2		84.0	-	57.7	66.6	-	46.1	50.6	43.8	75.1	81.5	67.1
7/4/2016	6:17:00 PM	53.8	64.4	52.1	55.1		61.5	51.0	69.4		81.1	-	57.0	61.6	-	46.5	52.0	44.1	74.9	81.8	69.5
7/4/2016	6:18:00 PM	58.5	62.9	53.4	54.6		61.0	50.7	70.2		82.2	-	56.9	60.9	-	46.8	53.1	43.5	74.2	80.0	69.9
7/4/2016	6:19:00 PM	54.6	59.3	52.5	57.6		65.4	52.0	70.9		82.9	-	56.4	61.4	-	47.2	64.9	43.6	73.2	79.2	70.2
7/4/2016	6:20:00 PM	53.5	57.7	51.9	58.2		64.4	52.9	66.7		74.5	-	56.9	64.6	-	46.4	52.8	43.3	72.8	79.5	69.2
7/4/2016	6:21:00 PM	52.8	55.3	51.9	62.5		69.0	55.7	68.6		85.1	-	56.2	60.4	-	46.8	51.3	44.3	72.6	75.9	70.2
7/4/2016	6:22:00 PM	53.1	54.8	52.0	59.0		67.8	53.6	71.0		83.0	-	56.3	63.2	-	47.3	53.6	44.1	72.0	76.1	66.9
7/4/2016	6:23:00 PM	53.1	55.4	52.0	60.9		70.2	54.2	70.0		82.3	-	59.4	69.1	-	47.3	52.8	44.2	72.8	79.7	69.2
7/4/2016	6:24:00 PM	53.4	57.3	52.1	57.5		63.2	54.2	70.8		83.8	-	56.7	60.8	-	46.6	52.1	43.3	72.4	76.1	68.3
7/4/2016	6:25:00 PM	54.5	62.8	52.6	60.7		69.2	56.4	71.1		83.6	-	57.1	61.8	-	47.0	52.9	43.9	72.5	77.2	68.7
7/4/2016	6:26:00 PM	53.5	56.9	52.1	58.6		62.1	54.7	69.1		81.3	-	56.7	63.2	-	47.2	52.0	44.3	72.8	76.9	68.3
7/4/2016	6:27:00 PM	54.9	63.1	52.7	60.4		67.3	56.2	71.7		84.7	-	57.3	68.0	-	47.2	53.8	44.5	72.6	77.0	67.6
7/4/2016	6:28:00 PM	56.6	64.7	53.1	57.1		60.1	55.0	67.0		74.1	-	55.6	59.9	-	47.5	54.4	44.2	72.9	79.9	66.9
7/4/2016	6:29:00 PM	58.4	70.7	52.8	61.2		70.4	56.6	66.8		73.8	-	56.3	66.5	-	46.9	52.0	44.3	80.1	93.1	67.6
7/4/2016	6:30:00 PM	58.4	71.1	53.8	61.0		66.1	57.9	71.0		82.5	-	57.4	63.7	-	46.7	52.7	44.1	73.1	77.4	68.4
7/4/2016	6:31:00 PM	53.3	55.3	52.1	61.4		66.4	57.0	71.3		88.6	-	55.7	61.1	-	47.2	55.8	44.5	72.8	76.9	67.9
7/4/2016	6:32:00 PM	56.2	76.6	52.3	60.0		70.7	56.5	67.9		78.6	-	56.3	62.4	-	47.2	51.2	44.1	72.8	78.2	67.9
7/4/2016	6:33:00 PM	53.2	58.9	52.0	64.0		69.9	56.7	71.1		82.0	-	58.0	66.0	-	46.8	51.9	44.3	72.7	78.3	68.6
7/4/2016	6:34:00 PM	53.0	55.6	51.8	59.8		63.9	55.4	67.9		79.2	-	57.2	64.9	-	46.4	51.0	44.1	72.4	75.9	69.6
7/4/2016	6:35:00 PM	56.1	73.2	52.1	57.2		66.9	53.2	69.6		81.4	-	57.5	60.8	-	46.9	53.8	44.4	72.3	78.9	69.1
7/4/2016	6:36:00 PM	54.0	63.3	52.4	60.3		64.5	55.9	71.7		83.3	-	57.6	67.2	-	46.7	52.1	44.0	72.4	78.6	67.9
7/4/2016	6:37:00 PM	53.6	57.7	52.1	59.8		65.1	56.3	74.0		82.7	-	58.2	63.1	-	47.3	52.2	44.0	73.7	79.5	69.3
7/4/2016	6:38:00 PM	54.1	62.8	52.0	60.7		67.6	55.0	67.7		80.1	-	56.8	59.1	-	47.8	53.3	45.2	73.0	82.5	68.2
7/4/2016	6:39:00 PM	54.9	66.9	52.0	59.6		67.6	54.8	67.4		82.8	-	59.2	66.8	-	48.1	50.9	45.9	72.8	77.8	69.3
7/4/2016	6:40:00 PM	52.8	60.2	51.8	59.9		68.4	53.3	67.2		79.6	-	56.5	61.4	-	47.0	51.7	44.6	71.7	78.0	68.3
7/4/2016	6:41:00 PM	54.9	59.4	52.1	58.4		65.9	54.5	67.4		79.6	-	55.8	58.9	-	46.4	53.0	43.6	72.0	78.1	68.5
7/4/2016	6:42:00 PM	57.9	64.3	52.6	55.6		58.9	52.6	69.6		79.7	-	56.0	61.7	-	46.0	49.7	44.1	72.0	77.0	69.0
7/4/2016	6:43:00 PM	53.1	60.3	51.7	56.2		59.2	53.5	67.5		85.3	-	56.6	63.5	-	46.4	51.0	43.9	72.1	76.3	69.1
7/4/2016	6:44:00 PM	53.0	57.2	51.8	62.1		68.4	55.2	66.1		74.6	-	58.8	66.7	-	46.6	51.7	44.7	72.2	80.5	68.5
7/4/2016	6:45:00 PM	53.0	59.5	51.9	62.0		67.2	57.4	67.2		79.5	-	56.9	61.5	-	46.8	52.7	44.8	71.7	75.4	68.6
7/4/2016	6:46:00 PM	52.8	58.8	51.9	63.2		68.2	59.3	69.0		80.4	-	56.5	60.1	-	46.7	49.7	44.4	71.8	76.2	69.0
7/4/2016	6:47:00 PM	53.0	54.9	52.1	62.1		69.8	55.8	67.3		81.5	-	57.2	62.7	-	47.4	50.5	44.9	71.6	74.8	68.7
7/4/2016	6:48:00 PM	54.5	61.6	51.8	60.4		70.9	55.2	71.6		91.6	-	56.9	65.0	-	47.4	54.5	44.9	71.9	77.8	68.4
7/4/2016	6:49:00 PM	53.5	55.4	52.3	58.7		62.3	55.6	69.0		82.2	-	56.5	60.8	-	46.9	49.8	44.3	72.2	80.7	68.3
7/4/2016	6:50:00 PM	52.8	59.8	51.8	58.0		63.8	54.4	72.2		85.7	-	56.4	60.9	-	46.8	56.2	44.0	72.0	77.6	68.5
7/4/2016	6:51:00 PM	53.0	58.5	51.8	58.3		65.1	54.2	73.9		85.5	-	56.8	62.9	-	47.0	56.3	44.4	71.9	74.9	68.3
7/4/2016	6:52:00 PM	53.3	56.1	52.3	56.4		62.0	52.7	74.3		88.1	-	56.7	63.4	-	47.0	51.2	45.1	72.0	79.5	67.9
7/4/2016	6:53:00 PM	55.2	59.3	52.2	57.3		63.8	53.9	71.8		82.2	-	57.1	64.4	-	46.5	49.3	44.6	73.1	81.4	68.7
7/4/2016	6:54:00 PM	54.0	56.9	52.2	56.5		62.0	51.7	76.4		89.3	-	56.8	63.7	-	46.9	50.6	44.6	71.9	76.8	69.3
7/4/2016	6:55:00 PM	53.5	56.1	52.0	56.5		62.8	51.7	80.3		91.4	-	56.4	61.8	-	46.5	51.8	44.4	72.3	79.2	69.5
7/4/2016	6:56:00 PM	53.9	58.0	52.2	58.3		68.8	53.3	78.3		94.6	-	57.4	66.9	-	46.2	50.4	44.2	71.7	76.3	68.6
7/4/2016	6:57:00 PM	54.7	61.3	52.5	58.3		64.1	51.7	71.2		82.7	-	57.0	62.6	-	46.9	50.9	44.7	78.1	97.3	68.6
7/4/2016	6:58:00 PM	54.0	62.7	52.5	54.2		57.9	51.3	72.8		89.3	-	57.7	66.0	-	47.2	55.4	44.4	71.1	75.9	66.9
7/4/2016	6:59:00 PM	54.8	66.5	52.5	61.3		68.3	53.5	77.1		94.4	-	58.0	69.4	-	47.3	54.4	44.4	71.7	77.9	68.4
7/4/2016	7:00:00 PM	59.6	75.6	52.6	60.2	60.8	67.3	53.5	68.4	70.1	84.1	-	55.8	64.1	-	46.7	56.0	44.2	72.3	76.9	68.6
7/4/2016	7:01:00 PM	58.2	71.0	53.1	57.4		62.9	53.5	67.2		82.0	-	56.3	62.3	-	46.3	56.1	44.3	72.6	77.7	70.4
7/4/2016	7:02:00 PM	53.8	62.2	52.3	57.3		63.4	54.2	65.3		81.1	-	56.4	63.5	-	46.8	51.0	44.9	73.0	77.0	69.7
7/4/2016	7:03:00 PM	53.6	65.9	52.1	57.2		62.2	54.1	65.6		77.3	-	56.6	64.7	-	47.1	49.9	44.7	72.6	76.9	68.4
7/4/2016	7:04:00 PM	53.2	55.9	52.2	59.3		69.6	54.1	66.4		75.9	-	57.3	64.8	-	47.0	52.8	44.7	71.9	76.7	68.8
7/4/2016	7:05:00 PM	57.9	65.9	53.0	60.5		69.4	55.0	68.3		84.2	-	55.5	59.1	-	47.1	55.4	44.6	72.1	79.8	68.6
7/4/2016	7:06:00 PM	53.9	59.9	52.2	58.1		64.4	52.4	69.4		80.2	-	56.4	62.3	-	46.9	50.3	44.4	72.9	78.0	67.3
7/4/2016	7:07:00 PM	52.7	54.3	51.7	60.0		64.6	53.6	66.8		78.0	-	56.0	59.4	-	47.0	50.7	44.6	74.5	81.2	70.5
7/4/2016	7:08:00 PM	53.1	58.7

7/4/2016	7:25:00 PM	52.8	57.7	51.4	59.2		65.3	54.4	70.2		83.5	-	56.2	61.3	-	45.0	47.5	43.1	73.2	79.6	68.4
7/4/2016	7:26:00 PM	52.2	54.5	51.3	57.0		66.7	52.0	68.1		80.9	-	56.8	60.9	-	45.9	49.8	43.5	71.6	77.4	66.6
7/4/2016	7:27:00 PM	52.3	53.2	51.5	56.9		63.1	53.0	70.7		86.6	-	57.9	61.4	-	45.4	49.1	43.1	73.2	81.1	66.7
7/4/2016	7:28:00 PM	52.2	55.1	51.3	61.1		69.6	56.3	68.5		81.1	-	58.1	66.7	-	45.2	48.7	42.7	72.5	80.9	67.9
7/4/2016	7:29:00 PM	54.4	58.3	51.6	64.4		72.9	58.2	70.3		84.8	-	57.1	60.0	-	45.0	49.3	42.7	72.9	80.9	66.1
7/4/2016	7:30:00 PM	56.0	61.7	52.0	60.2		67.2	55.2	67.3		76.2	-	56.7	59.3	-	45.6	50.9	43.2	70.8	75.5	66.7
7/4/2016	7:31:00 PM	55.2	62.8	52.3	59.9		66.9	55.4	66.5		81.6	-	57.8	67.2	-	45.1	51.5	42.1	71.4	75.7	67.8
7/4/2016	7:32:00 PM	52.7	56.8	51.8	58.7		65.2	53.5	67.4		76.5	-	58.4	62.6	-	45.0	48.3	42.3	71.6	75.5	68.1
7/4/2016	7:33:00 PM	52.5	53.9	51.7	62.8		70.4	56.4	66.5		74.4	-	56.9	66.4	-	45.0	48.2	42.4	70.5	75.0	66.9
7/4/2016	7:34:00 PM	53.1	57.2	51.8	59.6		69.6	55.5	69.7		81.4	-	58.8	62.6	-	45.1	50.2	42.7	71.1	75.3	65.8
7/4/2016	7:35:00 PM	53.1	54.8	52.2	62.5		68.5	58.8	68.8		81.9	-	63.4	74.1	-	47.3	53.9	43.0	71.9	75.8	68.0
7/4/2016	7:36:00 PM	52.7	54.0	51.9	61.1		66.6	57.9	66.4		77.2	-	58.4	62.8	-	52.2	58.2	47.3	72.2	75.9	68.1
7/4/2016	7:37:00 PM	52.6	54.6	51.7	61.7		69.2	56.7	67.7		79.4	-	58.1	61.3	-	48.7	60.3	44.4	72.7	76.9	69.2
7/4/2016	7:38:00 PM	53.2	54.5	52.0	60.4		63.9	57.3	69.4		83.2	-	58.1	61.8	-	46.4	54.3	44.0	72.1	76.5	67.6
7/4/2016	7:39:00 PM	52.9	54.4	51.7	63.4		69.6	57.9	71.4		84.7	-	57.9	61.8	-	45.5	50.3	42.9	72.2	77.5	67.7
7/4/2016	7:40:00 PM	52.8	56.3	51.7	61.0		66.6	56.5	70.8		82.7	-	60.3	68.2	-	44.6	49.1	42.4	71.6	75.9	66.8
7/4/2016	7:41:00 PM	53.0	56.7	51.6	61.3		68.0	57.1	73.4		85.2	-	58.9	70.8	-	45.0	50.7	42.4	69.8	76.2	65.9
7/4/2016	7:42:00 PM	52.9	57.7	51.6	62.8		71.6	57.1	75.0		93.5	-	56.9	65.9	-	45.1	48.5	42.8	72.4	77.3	67.0
7/4/2016	7:43:00 PM	52.5	59.6	51.6	63.8		69.6	57.2	68.5		81.4	-	57.7	62.1	-	45.4	50.1	43.0	72.4	75.8	68.0
7/4/2016	7:44:00 PM	53.1	65.2	51.6	61.9		68.6	56.2	66.4		77.5	-	58.5	64.0	-	45.7	49.1	43.0	72.3	78.8	68.5
7/4/2016	7:45:00 PM	53.0	55.7	51.8	61.5		66.0	58.2	68.0		79.8	-	58.5	65.2	-	46.2	49.5	42.7	72.1	76.1	67.5
7/4/2016	7:46:00 PM	52.8	56.5	51.4	62.1		67.0	57.4	67.0		78.1	-	59.2	64.7	-	47.0	51.2	43.9	72.3	77.8	67.7
7/4/2016	7:47:00 PM	52.3	54.9	51.3	63.0		77.8	58.1	67.8		80.1	-	59.7	64.6	-	45.2	48.4	43.1	72.5	78.2	67.7
7/4/2016	7:48:00 PM	52.4	55.5	51.5	59.9		67.0	56.8	68.0		77.5	-	58.7	63.8	-	47.6	51.3	44.0	72.4	77.5	67.3
7/4/2016	7:49:00 PM	52.3	59.7	51.3	59.5		67.6	56.0	68.1		77.0	-	59.2	66.7	-	45.7	53.6	43.4	72.0	76.5	67.1
7/4/2016	7:50:00 PM	52.1	54.3	51.2	59.7		66.3	56.1	68.1		82.2	-	58.4	66.6	-	44.5	47.0	42.6	72.1	77.2	67.6
7/4/2016	7:51:00 PM	52.3	54.1	51.3	58.8		65.2	54.0	70.6		85.1	-	60.5	69.0	-	45.3	48.2	43.1	73.4	82.5	69.0
7/4/2016	7:52:00 PM	52.1	53.3	51.2	62.0		68.6	54.5	67.5		77.9	-	59.2	67.5	-	45.4	53.8	43.3	73.5	80.0	68.6
7/4/2016	7:53:00 PM	52.5	53.9	51.3	66.6		71.0	57.5	74.3		84.7	-	58.8	62.3	-	45.7	49.7	43.5	72.4	76.4	66.0
7/4/2016	7:54:00 PM	52.6	55.1	51.7	57.9		66.4	53.6	74.5		86.2	-	58.0	60.8	-	45.6	49.1	43.4	72.6	76.6	67.3
7/4/2016	7:55:00 PM	54.2	60.7	51.6	57.8		66.6	53.7	72.0		85.1	-	58.4	63.1	-	45.6	53.1	42.9	72.4	77.0	68.3
7/4/2016	7:56:00 PM	53.7	70.2	51.3	61.5		68.2	56.9	72.6		91.4	-	57.7	60.4	-	44.7	48.1	41.9	72.1	78.4	67.4
7/4/2016	7:57:00 PM	53.1	65.8	51.3	59.3		71.5	53.8	72.3		85.6	-	57.5	62.3	-	45.0	56.9	42.3	72.5	77.3	67.3
7/4/2016	7:58:00 PM	53.2	56.7	51.8	62.6		69.6	54.7	71.4		84.0	-	57.6	60.4	-	45.3	48.7	42.8	72.8	76.6	68.9
7/4/2016	7:59:00 PM	52.8	55.9	51.6	59.2		67.6	55.6	71.3		84.5	-	58.4	64.6	-	45.4	48.7	42.9	72.6	77.4	67.6
7/4/2016	8:00:00 PM	57.1	60.9	52.6	60.8	64.5	74.8	54.8	68.1	69.9	79.8	-	59.0	62.5	-	46.1	50.3	43.1	73.6	80.7	67.4
7/4/2016	8:01:00 PM	54.6	59.7	51.8	61.4		68.4	56.4	66.1		77.8	-	58.4	60.5	-	45.6	48.5	43.1	74.8	80.0	68.9
7/4/2016	8:02:00 PM	52.6	58.7	51.4	60.6		65.2	56.6	77.6		93.8	-	58.0	61.9	-	45.4	49.7	43.0	74.3	80.1	66.6
7/4/2016	8:03:00 PM	52.6	60.7	51.4	60.1		66.7	55.5	66.4		82.6	-	58.8	62.3	-	45.7	50.1	43.3	73.2	79.5	67.5
7/4/2016	8:04:00 PM	52.1	53.0	51.2	62.1		72.0	55.8	68.6		87.8	-	56.8	60.8	-	45.7	52.2	43.3	72.3	75.8	66.5
7/4/2016	8:05:00 PM	52.3	53.7	51.3	58.1		62.2	55.3	69.5		81.4	-	58.2	65.9	-	45.6	49.8	43.5	72.5	77.4	67.6
7/4/2016	8:06:00 PM	53.4	56.4	51.8	59.6		68.3	56.0	74.3		87.9	-	57.1	59.7	-	45.8	50.5	42.7	73.2	77.9	67.2
7/4/2016	8:07:00 PM	52.1	53.5	51.3	61.6		68.6	56.4	67.9		81.9	-	57.9	62.0	-	46.3	49.8	43.5	73.1	78.6	67.7
7/4/2016	8:08:00 PM	52.4	61.3	51.1	58.4		65.2	55.1	66.0		80.9	-	57.7	61.8	-	45.6	49.8	43.5	73.3	79.1	68.5
7/4/2016	8:09:00 PM	52.1	55.3	51.2	58.2		64.0	55.8	68.5		88.2	-	57.2	60.4	-	45.6	55.3	43.0	72.6	76.4	68.0
7/4/2016	8:10:00 PM	52.1	55.5	51.2	58.1		65.4	54.9	63.0		74.9	-	57.5	61.6	-	45.5	52.2	43.2	72.9	77.1	67.3
7/4/2016	8:11:00 PM	52.5	55.6	51.6	61.0		67.2	56.5	61.1		71.0	-	58.2	61.8	-	45.0	51.3	42.7	73.2	78.7	68.4
7/4/2016	8:12:00 PM	52.6	58.2	51.6	65.2		71.2	57.4	61.8		72.5	-	56.2	59.8	-	44.6	49.2	41.7	72.9	77.9	68.8
7/4/2016	8:13:00 PM	52.9	58.8	51.6	63.5		72.4	57.6	62.7		70.8	-	55.5	59.3	-	44.5	50.7	42.2	73.2	77.1	69.2
7/4/2016	8:14:00 PM	53.3	64.0	51.8	60.9		68.8	57.0	64.3		74.0	-	57.7	61.0	-	44.8	50.5	42.0	72.1	78.2	67.3
7/4/2016	8:15:00 PM	54.0	63.2	52.2	60.2		66.6	54.4	66.4		84.2	-	58.9	63.1	-	47.2	54.9	42.8	72.4	76.2	68.4
7/4/2016	8:16:00 PM	53.4	61.9	51.8	59.3		74.4	54.8	71.9		86.0	-	58.0	63.0	-	44.6	47.8	41.8	72.6	78.5	68.1
7/4/2016	8:17:00 PM	54.1	59.2	52.6	64.9		73.9	55.8	71.2		83.7	-	58.4	62.2	-	44.8	54.8	42.9	72.6	81.0	68.3
7/4/2016	8:18:00 PM	53.7	56.2	52.3	62.6		69.6	55.9	73.0		92.5	-	58.1	61.3	-	45.2	47.9	42.6	74.5	79.3	69.0
7/4/2016	8:19:00 PM	54.4	57.1	52.6	64.2		71.1	55.9	69.2		81.1	-	57.8	68.7	-	45.9	61.8	42.8	74.4	79.2	70.4
7/4/2016	8:20:00 PM	57.7	64.2	52.9	59.4		64.6	56.7	72.4		90.0	-	57.3	68.2	-	45.0	50.2	42.7	75.2	82.2	68.9
7/4/2016	8:21:00 PM	61.7	68.8	53.5	59.4		64.7	55.5	69.5		84.1	-	57.4	65.1	-	45.5	62.1	42.8	73.5	78.7	67.9
7/4/2016	8:22:00 PM	55.5	67.6	53.4	63.8		72.3	56.4	72.2		89.6	-	57.4	66.9	-	45.3	60.6	42.6	73.9	78.9	69.4
7/4/2016	8:23:00 PM	62.4	68.9	54.1	60.0		73.2	56.5	71.5		87.4	-	57.3	60.2	-	46.3	58.8	42.2	72.9	79.8	68.0
7/4/2016	8:24:00 PM	53.8	59.2	51.9	60.0		78.3	55.8	74.9		89.9	-	56.9	65.7	-	47.3	69.1	42.8	74.1	80.3	69.3
7/4/2016	8:25:00 PM	52.5	55.7	51.6	60.2		65.0	56.3	75.4		94.7	-	55.9	59.8	-	45.6	52.7	42.8	74.6	79.3	70.8
7/4/2016	8:26:00 PM	52.6	58.8	51.5	58.0		63.2	55.2	75.7		89.0	-	56.0	58.5	-	44.7	51.4	42.4	74.4	79.2	69.7
7/4/2016	8:27:00 PM	52.3	54.7	51.4	57.7		61.6	55.3	75.1		91.3	-	58.8	68.6	-	51.6	76.3	41.9	74.1	77.9	67.3
7/4/2016	8:28:00 PM	54.7	61.8	51.9	59.0		65.2	55.7	75.9		91.0	-	56.7	65.2	-	44.5	51.1	41.5	74.1	77.7	70.4
7/4/2016	8:29:00 PM	57.5	65.8	51.5	61.8		68.1	56.4	68.6		80.1	-	56.1	59.1	-	43.7	52.7	41.4	74.3	79.0	68.5
7/4/2016	8:30:00 PM	59.9	67.3	53.3	63.3		68.4	56.8	73.3		86.8	-	57.5	78.1	-	43.7	54.3	41.5	73.7	78.1	68.8
7/4/2016	8:31:00 PM	58.0	76.1	52.1	59.2		63.8	56.3	73.0		90.1	-	56.4	65.6	-	44.2	52.9	42.2	73.3	76.7	68.4
7/4/2016	8:32:00 PM	52.5	56.6	51.4	60.3		71.7	54.5	68.6		83.4	-	57.5	61.4	-	44.3	54.0	42.1	74.9	82.0	70.7
7/4/2016	8:33:00 PM	54.1	62.6	51.7	57.9		62.9	55.7	68.9		87.2	-	58.3	65.2	-	43.8	54.7	41.5	74.5	79.9	70.9
7/4/2016	8:34:00 PM	60.8	67.9	54.1	59.9		66.3	55.6	70.0		83.3	-	56.9	62.5	-	44.0	57.1	41.5	74.1	79.3	70.5
7/4/2016	8:35:00 PM	58.5	71.0	52.1	60.8		70.6	56.3	69.6		84.2	-	58.3	68.4	-	53.5	68.0	43.0	74.4	78.1	70.8
7/4/2016	8:36:00 PM	53.2	57.7	51.7	59.7		63.3	57.5	67.9		81.0	-	56.6	76.5	-	45.1	56.5	42.7	73.5	77.9	68.3
7/4/2016	8:37:00 PM	52.7	59.0	51.5	60.2		65.2	57.2	67.4		81.1	-	54.8	58.2	-	44.0	51.8	41.7	74.4	77.8	71.5
7/4/2016	8:38:00 PM	52.4	56.8	51.4	60.8		63.2	58.3	62.7		71.0	-	55.8	59.0	-	43.8	50.6	41.7	74.4	79.1	70.2
7/4/2016	8:39:00 PM	53.2	63.9	51.5	60.1		63.0	58.2	64.5		75.8	-	57.1	64.7	-	44.7	56.9	41.5	73.4	79.2	70.0
7/4/2016	8:40:00 PM	54.7	68.8	51.3	60.6		64.7	58.3	63.0		70.6	-	57.8	70.1	-	44.6	50.9	41.7	72.4	76.1	69.7
7/4/2016	8:41:00 PM	57.6	61.7	52.1	65.1		72.8	58.5	66.7		81.3	-	57.4	72.4	-	44.9	58.5	41.7	72.0	75.9	68.7
7/4/2016	8:42:00 PM	55.8	75.9	51.9	63.9		70.8	59.3	66.7		78.6	-	57.4	61.5	-	50.5	75.5	42.1	73.5	77.2	70.2
7/4/2016	8:43:00 PM	52.7	54.6	51.5	67.6		71.3	64.7	73.1		95.5	-	56.0	59.1	-	45.5	64.2	40.8	74.0	79.4	70.6
7/4/2016	8:44:00 PM	56.5	64.9	52.2	67.2		70.5	64.7	62.3		71.2	-	56.8	62.7	-	43.7	52.8	40.4	74.0	78.3	70.0
7/4/2016	8:45:00 PM	59.0	67.4	52.3	64.0		71.7	55.9	64.7		76.7	-	56.7	59.0	-	43.9	61.4	41.0	74.1	77.9	69.6
7/4/2016	8:46:00 PM	53.0	60.5	51.5	59.3		65.9	55.9	61.6		78.6	-	56.8	61.2	-	43.9	57.5	41.2	74.3	79.0	67.8
7/4/2016	8:47:00 PM	55.1	64.2	52.5	58.1		65.8	55.2	65.2		72.1	-	56.9	62.6	-	49.8	71.2	41.6	74.9	90.5	68.8
7/4/2016	8:48:00 PM	53.9	56.6	52.0	62.8		70.1	56.1	59.0		68.3	-	56.6	63.1	-	48.0	70.9	41.1	73.8	78.0	69.9
7/4/2016	8:49:00 PM	52.9	55.2	51.9	57.6		62.3	53.7	58.4		67.2	-	55.0	57.8	-	48.4	71.1	40.9	74.4	79.5	69.2
7/4/2016	8:50:00 PM	54.1	58.9	51.5	61.9		74.6	55.3	57.6		70.5	-	55.9	60.5	-	49.5	70.8	41.3	73.3	79.8	68.0
7/4/2016	8:51:00 PM	52.6	58.4	51.4	65.0		73.8	56.3	56.7		70.6	-	56.3	65.1	-	46.0	66.1	41.4	75.5	90.8	67.7
7/4/2016	8:52:00 PM	57.2	63.4	51.7	60.6		67.6	55.8	56.8		73.4	-	56.0	64.5	-	46.5	67.6	40.4	75.4	86.7	70.6
7/4/2016	8:53:00 PM	55.3	61.7	51.8	58.7		70.7	54.6	55.9		63.2	-	54.8	61.7	-	45.5	65.0	40.4	74.4	78.7	70.5
7/4/2016	8:54:00 PM	53.3	56.1	51.6	60.0		73.7	55.5	55.9		68.9	-	56.2	60.4	-	46.0	55.0	41.5	75.8	91.2	69.1
7/4/2016	8:55:00 PM	60.8	68.4	52.8	58.6		64.4	54.9	59.0		74.4	-	56.6	72.1	-	43.3	49.9	40.4	76.6	86.6	71.1
7/4/2016	8:56:00 PM	55.7	63.0	51.6	58.6		67.6	55.9	55.7		66.5	-	57.7	67.1	-	43.2	57.1	40.2	77.3	83.4	72.7
7/4/2016	8:57:00 PM	52.6	63.5	51.2	63.3		77.3	56.0	58.1		79.7	-	59.9	73.3	-	43.3	55.6	40.1	78.8	89.6	73.3
7/4/2016	8:58:00 PM	52.1	57.4	50.9	79.2		102.0	56.7	58.7		64.2	-	56.2	59.4	-	43.0	53.3	39.6	77.8	83.9	74.3
7/4/2016	8:59:00 PM	52.1	56.8	50.9	60.0		67.8	55.6	56.2		66.7	-	57.5	74.3	-	43.1	57.0	39.6	78.2	87.3	74.0
7/4/2016	9:00:00 PM	52.0	54.8	51.1	58.4	60.5	67.0	55.5	65.5	60.9	78.9	-	61.1	78.7	-	48.7	71.7	40.0	86.1	100.5	74.8
7/4/2016	9:01:00 PM	66.6	87.5	51.1	90.2		105.6	55.5	78.7		92.9	-	59.7	71.0	-	51.4	71.9	39.8	84.7	98.3	73.0
7/4/2016	9:02:00 PM	74.4	91.4	53.9	86.6		102.8	62.9	76.3		91.3	-	62.2	80.3	-	51.0	69.3	41.1	87.0	101.9	75.2
7/4/2016	9:03:00 PM	70.9	90.5	52.8	84.7		101.8	57.9	74.8		90.7	-	64.0	83.9	-	52.7	69.8	41.0	85.7	103.7	71.1
7/4/2016	9:04:00 PM	70.6	90.9	51.9	89.8		104.1	62.9	76.9		93.8	-	61.3	77.5	-	51.1	71.4	39.2	86.7	104.4	70.6
7/4/2016	9:05:00 PM	70.7	88.9	52.7	87.9		102.9	61.5	74.9		91.0	-	62.8	80.0	-	52.9	71.9	40.1	84.6	100.6	66.8
7/4/2016	9:06:00 PM	71.8	92.1	53.4	87.4		102.5	61.4	74.6		91.0	-	64.7	83.9	-	49.3	66.1	40.5	83.2	99.3	68.8
7/4/2016	9:07:00 PM	75.7	98.7	52.5	86.0		102.2	55.5	75.1		91.4	-	60.7	76.3	-	49.3	69.4	39.7	84.3	101.4	67.4
7/4/2016	9:08:00 PM	71.0	91.5	52.0	87.1		103.9	62.7	74.5		90.2	-	60.3	78.9	-	49.2	67.0	40.6	83.4	98.2	67.0
7/4/2016	9:09:00 PM	66.8	86.3	52.0	86.5		102.6	60.3	75.9		91.4	-	61.9	80.4	-	49.8	70.9	40.2	85.1	101.4	69.4
7/4/2016	9:10:00 PM	62.8	80.3	52.3	87.5		104.3	60.7	75.9		93.4	-	61.4	77.7	-	54.1	74.4	40.7	85.8	102.0	71.1
7/4/2016	9:11:00 PM	71.9	89.3	52.3	89.4		102.6	60.8	74.6		92.2	-	62.2	80.1	-	50.3	69.8	39.8	83.3	98.6	69.1
7/4/2016	9:12:00 PM	72.9	90.4	51.8	85.8		106.1	59.9	75.4		91.5	-	64.1	83.9	-	48.5	63.5	40.0	84.5	101.6	68.7
7/4/2016	9:13:00 PM	70.8	91.4	51.9	88.1		107.1	59.9	74.5		90.1	-	63.5	84.1	-	50.7	70.6	40.5	85.4	103.1	69.5
7/4/2016	9:14:00 PM	63.6	79.9	52.2	85.7		100.0	59.2	76.2		92.3	-	65.1	78.1	-	52.2	69.5	41.0	84.9	103.2	69.2
7/4/2016	9:15:00 PM	68.3	86.8	52.9	88.2		104.1	56.7	75.3		90.5	-	65.7	79.7	-	48.9	66.8	40.1	87.0	106.6	70.2
7/4/2016	9:16:00 PM	69.4	87.5	52.0	85.6		100.5	59.9	80.7		92.9	-	64.8	83.7	-	50.6	71.7	40.4	85.9	101.8	72.0
7/4/2016	9:17:00 PM	64.3	81.3	51.9	87.7		104.1	59.1	81.2		95.9	-	63.7	80.1	-	55.7	75.7	39.8	95.0	107.2	78.5
7/4/2016	9:18:00 PM	73.2	92.4	52.6	94.6		106.5	62.6	71.3		86.3	-	68.7	83.6	-	55.4	71.4	41.9	77.6	87.2	71.0
7/4/2016	9:19:00 PM	77.0	95.7	56.7	88.6		104.5	59.1	66.6		79.9	-	59.9	77.4	-	47.3	59.7	40.6	75.1	81.9	70.6
7/4/2016	9:20:00 PM	61.6	75.4	52.1	62.0		69.6	58.2	57.9		70.1	-	57.9	78.3	-	42.8	54.9	39.8	75.0	79.4	71.4
7/4/2016	9:21:00 PM	67.2	77.2	51.1	62.3		75.3	57.6	57.0		72.2	-	66.5	78.5	-	43.5	52.3	40.2	72.1	83.1	67.2
7/4/2016	9:22:00 PM	52.6	62.0	50.9	64.3		75.3	56.6	55.8		72.7	-	58.6	77.4	-	42.8	51.7	39.9	70.4	82.6	66.4
7/4/2016	9:23:00 PM	57.4	72.3	51.2	59.1		64.4	55.6	59.8		73.9	-	55.6	60.7	-	42.6	54.2	39.2	70.8	74.7	67.1
7/4/2016	9:24:00 PM	53.0	60.8	51.4	59.3		63.2	56.7	61.8		77.1	-	60.8	80.5	-	43.6	54.1	40.8	69.7	80.5	65.3
7/4/2016	9:25:00 PM	52.4	63.1	51.1	59.3		63.2	56.1	56.8		66.5	-	55.5	62.3	-	42.5	48.5	39.8	70.5	83.8	65.7
7/4/2016	9:26:00 PM	52.2	56.6	51.4	58.8		64.0	56.8	54.4		64.7	-	60.3	69.1	-	41.6	50.9	38.9	69.3	73.1	65.7
7/4/2016	9:27:00 PM	52.2	54.3	51.3	58.8		61.8	56.9	56.6		69.1	-	58.2	64.4	-	42.9	54.2	39.4	70.4	82.5	66.5
7/4/2016	9:28:00 PM	53.0	65.0	51.2	61.1		68.0	56.1	55.4		64.5	-	61.6	74.5	-	44.0	52.6	40.2	69.2	75.2	65.7
7/4/2016	9:29:00 PM	52.9	67.0	51.5	58.8		61.3	56.6	58.3		70.7	-	57.9	68.6	-	42.8	50.6	40.0	69.4	73.5	65.4
7/4/2016	9:30:00 PM	53.3	63.6	51.7	60.7		67.0	56.6	60.6		73.4	-	56.2	60.5	-	42.3	47.9	39.9	69.9	84.0	65.0
7/4/2016	9:31:00 PM	52.9	56.4	51.8	61.9		65.7	59.2	53.7		63.0	-	56.0	69.4	-	42.2	47.3	39.8	69.3	75.4	65.5
7/4/2016	9:32:00 PM	53.5	59.3	52.3	61.7		69.1	58.7	56.4		71.1	-	55.6	60.7	-	42.2	55.2	39.8	69.8	76.3	65.7
7/4/2016	9:33:00 PM	53.4	56.3	51.8	59.5		64.2	56.9	52.9		63.2	-	57.0	59.8	-	42.9	58.9	39.7	70.5	76.2	66.4
7/4/2016	9:34:00 PM	53.1	58.7	51.7	58

7/4/2016	9:51:00 PM	52.1	57.3	51.2	55.0		68.6	51.6	51.6		66.0	-	56.5	68.5	-	41.3	54.0	38.9	68.7	72.5	63.7
7/4/2016	9:52:00 PM	52.8	55.9	51.5	53.1		58.3	51.3	52.1		60.0	-	58.3	66.3	-	41.3	53.5	38.9	68.9	77.4	64.3
7/4/2016	9:53:00 PM	52.5	54.9	51.2	55.0		64.2	51.6	50.0		56.7	-	56.2	59.9	-	40.6	53.3	38.2	69.9	74.0	65.5
7/4/2016	9:54:00 PM	52.9	60.7	51.7	56.9		60.7	53.0	52.5		72.4	-	56.8	59.7	-	41.6	53.9	38.3	68.9	72.5	63.9
7/4/2016	9:55:00 PM	53.1	60.1	51.9	57.2		64.0	53.6	51.0		58.4	-	55.6	66.0	-	42.1	48.7	39.0	69.5	83.6	64.9
7/4/2016	9:56:00 PM	53.3	61.8	51.8	56.2		62.7	52.2	51.2		58.2	-	56.4	63.8	-	42.2	58.2	39.1	68.3	72.5	64.2
7/4/2016	9:57:00 PM	52.2	56.7	51.4	57.4		62.8	52.8	51.3		61.1	-	56.0	59.3	-	41.0	49.7	38.5	68.6	74.4	63.6
7/4/2016	9:58:00 PM	52.5	55.2	51.1	60.5		68.8	51.5	69.4		90.1	-	56.0	60.2	-	40.5	46.1	37.7	68.6	72.7	64.4
7/4/2016	9:59:00 PM	52.6	64.5	51.2	55.7		65.9	52.0	74.3		91.7	-	55.9	61.0	-	40.5	44.4	38.3	68.5	72.5	64.2
7/4/2016	10:00:00 PM	52.2	58.5	51.2	58.9	58.3	68.7	51.3	52.0	49.6	65.2	-	55.1	57.9	-	40.9	45.0	38.6	69.4	74.5	63.2
7/4/2016	10:01:00 PM	52.9	54.9	51.8	53.0		55.0	50.5	51.2		57.8	-	55.0	57.8	-	41.4	45.4	38.6	68.4	73.5	62.5
7/4/2016	10:02:00 PM	52.5	54.2	51.5	53.4		56.3	51.0	52.6		68.7	-	55.0	57.5	-	41.3	44.6	38.9	69.0	74.5	64.0
7/4/2016	10:03:00 PM	52.3	53.9	51.0	55.0		57.9	52.3	50.9		54.3	-	55.3	59.0	-	41.2	47.0	38.9	68.1	73.6	64.2
7/4/2016	10:04:00 PM	52.9	67.7	51.2	55.4		58.7	52.2	52.7		60.7	-	55.8	58.2	-	41.0	46.6	38.2	67.2	73.6	61.0
7/4/2016	10:05:00 PM	52.6	66.1	51.0	54.9		58.3	51.3	50.7		54.6	-	56.0	60.3	-	42.1	53.7	38.7	67.4	74.1	62.5
7/4/2016	10:06:00 PM	52.4	55.6	51.1	52.6		55.7	50.4	49.2		51.6	-	57.3	59.9	-	41.8	47.0	38.5	67.3	72.6	63.6
7/4/2016	10:07:00 PM	53.0	59.6	51.3	61.8		71.8	51.4	48.9		51.0	-	57.6	60.1	-	41.0	44.3	38.7	67.9	73.5	61.2
7/4/2016	10:08:00 PM	51.9	56.2	50.9	59.8		69.1	50.7	49.6		57.8	-	58.8	68.1	-	42.1	45.7	38.4	66.3	70.2	60.7
7/4/2016	10:09:00 PM	52.7	58.4	51.1	67.1		78.5	49.9	49.3		53.1	-	59.8	72.1	-	41.6	45.5	38.6	67.9	73.1	62.7
7/4/2016	10:10:00 PM	52.0	54.0	50.9	59.1		68.9	50.9	50.0		59.2	-	55.1	58.7	-	41.8	49.4	37.5	67.7	73.0	59.7
7/4/2016	10:11:00 PM	53.5	60.7	50.9	53.1		55.7	50.2	49.5		57.1	-	56.5	59.7	-	42.0	55.8	39.0	67.3	72.1	61.6
7/4/2016	10:12:00 PM	51.9	56.4	50.8	51.7		55.8	49.0	52.2		69.4	-	56.5	61.0	-	41.5	45.9	38.3	66.7	72.5	61.9
7/4/2016	10:13:00 PM	52.3	57.1	51.1	54.5		63.0	48.6	50.1		67.2	-	55.7	59.4	-	40.9	44.5	37.8	66.8	71.4	61.8
7/4/2016	10:14:00 PM	52.2	59.0	50.9	50.6		53.2	48.6	50.9		53.9	-	54.5	57.2	-	42.4	55.6	39.1	72.0	95.4	58.8
7/4/2016	10:15:00 PM	52.0	56.0	51.0	55.8		66.5	49.1	50.9		55.9	-	55.9	59.5	-	41.9	46.0	38.9	68.1	74.8	60.1
7/4/2016	10:16:00 PM	52.7	65.0	50.9	57.8		66.4	49.2	51.1		55.4	-	56.1	58.6	-	42.9	48.6	39.5	66.7	72.7	58.4
7/4/2016	10:17:00 PM	52.0	55.0	50.9	60.7		68.7	48.9	49.4		63.2	-	56.7	62.8	-	41.8	55.1	38.4	67.1	72.5	59.6
7/4/2016	10:18:00 PM	53.6	66.7	51.3	51.5		56.6	48.7	49.7		54.5	-	55.0	57.7	-	41.1	45.4	38.1	66.8	71.6	60.5
7/4/2016	10:19:00 PM	53.6	66.9	51.2	52.8		60.1	48.7	50.8		53.5	-	56.7	61.6	-	41.4	45.5	38.3	67.3	72.5	61.6
7/4/2016	10:20:00 PM	72.6	97.6	51.1	60.9		67.9	51.0	50.8		54.0	-	56.0	58.8	-	41.5	45.6	37.5	68.2	77.2	62.1
7/4/2016	10:21:00 PM	60.9	70.9	52.2	59.2		63.3	55.5	49.3		51.8	-	55.9	61.8	-	41.3	47.3	38.0	67.2	74.2	61.6
7/4/2016	10:22:00 PM	53.8	62.4	51.2	56.4		60.5	52.3	49.2		53.2	-	56.1	62.7	-	41.5	47.2	38.2	66.4	71.1	60.3
7/4/2016	10:23:00 PM	52.0	54.6	50.8	55.0		58.6	51.7	48.9		54.9	-	56.0	63.2	-	43.2	48.4	39.0	67.3	74.1	58.6
7/4/2016	10:24:00 PM	52.2	57.3	51.1	56.7		60.3	53.1	50.5		58.5	-	57.4	61.0	-	41.4	45.3	38.2	66.4	73.2	59.0
7/4/2016	10:25:00 PM	52.3	55.0	51.3	55.3		59.0	51.9	49.3		62.0	-	56.6	60.8	-	40.7	44.5	37.5	67.8	73.8	61.6
7/4/2016	10:26:00 PM	52.4	55.2	51.2	56.1		61.2	52.3	50.0		55.0	-	57.1	61.2	-	42.6	46.5	39.7	67.7	73.2	58.8
7/4/2016	10:27:00 PM	53.6	56.0	51.3	53.1		55.9	50.6	50.6		57.2	-	57.5	61.2	-	41.4	45.0	38.7	66.8	73.3	58.7
7/4/2016	10:28:00 PM	52.2	55.0	50.9	53.9		57.6	51.1	49.6		60.5	-	55.6	58.7	-	41.2	45.9	38.2	69.7	90.1	61.8
7/4/2016	10:29:00 PM	51.7	55.3	50.7	52.8		60.8	49.1	49.9		59.8	-	56.1	63.4	-	41.4	47.5	38.5	66.0	71.2	59.8
7/4/2016	10:30:00 PM	52.4	55.7	50.9	50.9		58.2	49.0	48.8		52.1	-	57.0	59.4	-	41.2	44.7	38.5	66.4	71.4	59.7
7/4/2016	10:31:00 PM	52.4	63.0	51.1	49.6		51.7	47.7	47.5		50.3	-	57.3	63.8	-	41.0	45.8	38.0	70.8	93.9	56.7
7/4/2016	10:32:00 PM	52.1	53.9	51.2	49.1		51.0	47.6	48.7		53.9	-	58.4	66.7	-	43.1	64.3	37.8	67.2	72.4	59.2
7/4/2016	10:33:00 PM	52.2	56.0	51.2	49.4		52.4	47.6	48.0		52.1	-	57.6	60.6	-	41.0	44.1	38.1	67.4	73.8	59.8
7/4/2016	10:34:00 PM	52.0	52.9	51.2	52.6		56.8	48.3	48.2		56.3	-	57.9	61.8	-	42.2	60.8	38.9	76.9	101.3	62.9
7/4/2016	10:35:00 PM	52.5	56.5	51.2	50.2		54.1	47.2	48.1		53.4	-	56.8	60.3	-	41.4	47.2	38.4	67.3	73.8	60.1
7/4/2016	10:36:00 PM	51.9	54.1	51.0	49.6		52.4	47.3	47.9		57.3	-	55.5	57.9	-	41.4	49.0	38.5	66.0	72.0	61.1
7/4/2016	10:37:00 PM	47.4	56.4	37.1	51.0		52.8	49.6	48.1		53.9	-	55.9	59.1	-	41.8	45.9	39.3	68.7	74.5	63.5
7/4/2016	10:38:00 PM	42.6	57.2	37.7	64.5		72.8	49.6	47.9		51.4	-	56.0	58.8	-	41.0	46.0	38.0	67.6	73.3	61.4
7/4/2016	10:39:00 PM	43.7	55.0	39.7	56.2		67.9	48.2	51.1		67.2	-	55.9	59.1	-	41.1	47.1	38.0	67.0	72.4	59.8
7/4/2016	10:40:00 PM	47.1	58.7	40.2	51.7		59.2	48.0	48.6		52.4	-	56.1	60.3	-	41.0	45.9	37.5	67.2	71.6	61.3
7/4/2016	10:41:00 PM	45.4	50.5	41.0	54.8		61.8	50.5	47.9		50.6	-	56.5	60.2	-	41.2	46.8	38.2	68.3	74.6	60.6
7/4/2016	10:42:00 PM	48.3	59.1	43.0	53.7		57.0	50.3	48.3		57.7	-	55.9	58.9	-	41.2	46.8	38.1	67.4	72.5	62.4
7/4/2016	10:43:00 PM	45.9	52.8	41.6	59.9		65.5	54.0	53.1		71.7	-	55.8	63.4	-	40.9	45.2	38.1	67.6	73.4	63.1
7/4/2016	10:44:00 PM	43.6	51.7	39.9	58.2		64.1	53.2	47.8		52.2	-	56.4	66.7	-	43.0	49.1	38.4	66.7	71.9	60.4
7/4/2016	10:45:00 PM	43.1	49.7	38.3	65.8		76.1	56.0	49.0		61.7	-	55.8	61.4	-	41.0	45.1	38.1	66.4	72.8	58.8
7/4/2016	10:46:00 PM	44.7	61.4	37.5	58.3		63.2	54.8	48.3		55.3	-	56.9	60.9	-	41.7	59.3	37.7	76.5	100.8	59.8
7/4/2016	10:47:00 PM	44.1	50.9	39.9	57.8		65.2	54.0	47.7		50.6	-	56.2	59.5	-	40.9	50.6	37.7	67.6	72.4	60.7
7/4/2016	10:48:00 PM	41.7	45.9	37.3	52.9		56.2	50.1	47.4		50.9	-	55.6	59.5	-	40.7	44.7	38.0	68.5	73.0	62.6
7/4/2016	10:49:00 PM	38.3	43.5	36.0	65.5		76.7	48.5	47.9		55.5	-	54.9	59.6	-	40.2	45.0	36.5	67.8	73.8	58.1
7/4/2016	10:50:00 PM	38.8	50.9	36.0	58.6		68.0	49.8	48.4		54.0	-	55.2	59.8	-	40.4	45.4	37.2	66.5	70.9	59.4
7/4/2016	10:51:00 PM	48.2	60.9	36.5	64.8		74.5	49.9	45.9		51.0	-	55.3	58.4	-	41.5	46.4	37.4	67.3	73.2	62.5
7/4/2016	10:52:00 PM	43.1	54.6	34.4	53.4		58.7	50.0	47.0		54.1	-	55.6	62.1	-	40.6	46.4	37.7	66.5	73.4	59.5
7/4/2016	10:53:00 PM	43.8	55.0	34.9	53.2		61.2	49.4	47.6		52.0	-	55.1	59.4	-	39.6	43.9	36.4	65.4	70.7	57.9
7/4/2016	10:54:00 PM	37.1	47.7	34.0	51.4		56.1	48.6	47.9		50.9	-	54.8	60.5	-	40.0	45.4	36.6	66.4	71.1	59.5
7/4/2016	10:55:00 PM	39.2	49.3	34.2	51.9		55.6	48.7	47.5		58.7	-	55.0	58.4	-	40.2	44.1	37.0	66.8	73.0	61.2
7/4/2016	10:56:00 PM	44.9	53.0	33.7	58.7		67.0	52.9	49.1		67.6	-	53.8	57.9	-	42.3	47.2	37.5	66.6	71.8	60.8
7/4/2016	10:57:00 PM	55.9	79.6	36.6	57.3		62.2	53.4	47.7		50.5	-	55.1	59.0	-	42.6	48.9	37.7	67.2	73.4	59.2
7/4/2016	10:58:00 PM	44.2	60.7	37.1	59.0		62.7	54.1	47.8		51.0	-	53.7	56.9	-	40.4	46.6	36.9	67.2	74.4	59.7
7/4/2016	10:59:00 PM	53.5	71.4	39.4	56.9		62.7	53.5	47.3		49.3	-	54.5	57.3	-	40.2	44.0	37.2	69.8	92.2	56.9
7/4/2016	11:00:00 PM	54.5	75.6	37.4	55.6	52.1	59.7	50.7	49.1	49.7	67.6	-	55.7	61.4	-	40.0	53.6	36.6	66.3	71.7	57.6
7/4/2016	11:01:00 PM	57.0	76.7	35.8	58.7		67.5	50.8	47.1		53.1	-	54.8	56.7	-	40.5	46.0	37.0	66.3	75.8	60.1
7/4/2016	11:02:00 PM	59.3	80.8	39.4	52.1		56.3	49.2	46.9		54.8	-	67.0	88.8	-	39.4	45.7	36.0	66.2	78.3	58.9
7/4/2016	11:03:00 PM	51.6	65.7	38.5	51.3		53.4	49.6	47.8		51.1	-	54.9	63.5	-	40.1	44.9	36.5	66.7	74.6	58.9
7/4/2016	11:04:00 PM	62.7	78.4	37.5	50.4		52.4	48.5	49.6		65.2	-	57.0	75.4	-	39.2	45.0	36.3	67.6	73.1	60.8
7/4/2016	11:05:00 PM	63.3	81.9	40.7	49.6		56.5	47.7	49.1		54.5	-	55.9	66.5	-	39.1	45.2	36.3	67.3	73.1	59.9
7/4/2016	11:06:00 PM	54.8	69.7	42.4	50.5		59.0	47.8	48.1		53.9	-	55.6	60.9	-	39.4	46.5	36.5	66.6	73.2	60.8
7/4/2016	11:07:00 PM	62.2	76.1	38.1	51.1		53.6	49.0	48.0		50.8	-	54.6	56.9	-	39.2	44.8	36.3	67.6	73.0	58.6
7/4/2016	11:08:00 PM	58.7	72.7	38.7	51.1		53.2	49.2	47.2		55.1	-	53.4	55.8	-	39.4	42.7	36.1	67.3	73.3	59.7
7/4/2016	11:09:00 PM	54.8	65.8	35.4	62.2		71.7	50.0	62.1		81.7	-	55.1	58.6	-	39.8	49.5	36.3	65.9	71.2	59.5
7/4/2016	11:10:00 PM	54.1	64.4	36.2	55.5		67.3	48.7	48.0		51.3	-	55.3	58.9	-	38.7	46.5	35.7	66.2	71.4	60.1
7/4/2016	11:11:00 PM	52.3	64.6	36.3	49.8		53.1	47.2	47.9		52.8	-	56.6	77.2	-	38.2	42.6	35.1	66.2	72.6	59.3
7/4/2016	11:12:00 PM	49.2	64.4	39.1	50.1		56.4	47.3	48.1		50.7	-	55.1	58.9	-	38.3	46.7	35.8	66.0	69.7	61.3
7/4/2016	11:13:00 PM	49.1	60.1	39.8	48.3		53.3	46.2	48.0		54.1	-	55.3	59.7	-	38.2	44.5	35.5	66.5	70.7	59.4
7/4/2016	11:14:00 PM	48.8	60.6	36.1	47.9		49.7	46.0	48.5		52.4	-	56.1	62.2	-	38.9	43.7	36.3	67.3	71.9	61.0
7/4/2016	11:15:00 PM	48.7	59.1	36.8	47.6		50.9	44.7	48.7		53.9	-	55.3	68.4	-	38.0	43.0	35.4	67.2	72.2	63.0
7/4/2016	11:16:00 PM	43.3	54.3	34.9	47.4		50.0	45.2	50.1		57.5	-	54.6	59.4	-	37.5	41.0	35.1	65.6	69.8	58.7
7/4/2016	11:17:00 PM	51.5	66.6	37.0	47.8		55.1	44.4	49.2		53.0	-	60.7	71.5	-	37.6	41.7	35.0	66.5	71.0	60.4
7/4/2016	11:18:00 PM	59.5	78.5	41.4	47.2		50.7	45.0	47.6		51.0	-	55.0	59.0	-	37.3	43.2	34.5	65.9	71.3	55.7
7/4/2016	11:19:00 PM	55.5	77.7	39.3	46.0		48.6	44.3	48.2		59.2	-	54.2	60.7	-	38.3	42.9	34.4	66.0	71.6	59.5
7/4/2016	11:20:00 PM	50.5	66.3	40.5	48.1		51.0	44.6	48.9		59.0	-	54.1	57.1	-	38.4	44.7	35.6	66.9	80.5	60.8
7/4/2016	11:21:00 PM	51.3	59.6	39.2	50.8		55.7	48.3	50.1		54.4	-	54.5	58.6	-	38.0	46.1	35.1	65.8	71.5	59.3
7/4/2016	11:22:00 PM	43.5	58.0	36.2	57.0		63.2	52.7	49.1		52.3	-	53.1	56.6	-	38.0	41.7	35.3	66.6	71.6	61.2
7/4/2016	11:23:00 PM	48.5	67.9	38.1	53.6		56.3	51.3	46.8		49.3	-	53.9	56.4	-	38.0	42.6	35.1	66.1	70.7	59.4
7/4/2016	11:24:00 PM	49.0	65.5	35.5	51.2		53.9	48.0	46.5		50.4	-	55.0	58.6	-	37.4	42.6	34.8	65.7	68.2	61.2
7/4/2016	11:25:00 PM	45.8	58.5	35.4	50.4		52.8	48.5	47.8		53.6	-	55.7	58.1	-	37.3	42.8	34.6	67.1	73.8	61.5
7/4/2016	11:26:00 PM	50.0	65.3	40.0	49.2		51.0	46.8	48.0		51.7	-	53.9	56.8	-	37.9	40.9	35.1	67.2	72.7	60.0
7/4/2016	11:27:00 PM	52.3	65.6	36.1	48.6		50.3	47.0	47.1		51.5	-	55.1	61.6	-	37.9	44.1	35.3	67.3	72.0	60.7
7/4/2016	11:28:00 PM	54.0	67.0	34.6	47.8		49.5	46.0	47.4		50.2	-	54.3	59.5	-	37.6	43.6	34.9	66.4	71.0	62.3
7/4/2016	11:29:00 PM	64.0	77.8	35.8	48.6		50.8	46.5	47.4		49.5	-	54.1	59.4	-	37.2	41.9	34.6	66.4	69.9	62.4
7/4/2016	11:30:00 PM	58.1	71.6	54.9	48.6		53.0	46.3	48.1		50.8	-	54.6	57.4	-	37.7	45.3	35.1	76.3	101.2	62.3
7/4/2016	11:31:00 PM	57.1	74.7	38.6	52.8		63.6	46.4	47.0		49.3	-	53.5	58.2	-	37.3	42.0	35.3	65.8	69.4	60.8
7/4/2016	11:32:00 PM	36.9	49.7	32.1	51.6		60.5	45.9	47.0		52.1	-	53.2	57.1	-	37.8	47.9	34.9	67.2	71.9	62.1
7/4/2016	11:33:00 PM	37.8	47.7	31.9	54.9		67.9	49.5	48.5		53.3	-	55.3	58.7	-	37.4	41.8	34.6	66.6	70.9	61.8
7/4/2016	11:34:00 PM	46.4	53.6	35.6	52.9		64.2	47.7	48.0		51.4	-	54.2	57.0	-	37.2	44.1	34.9	66.0	70.6	61.5
7/4/2016	11:35:00 PM	41.9	51.5	35.8	50.7		60.4	44.8	49.4		55.6	-	55.4	64.5	-	37.3	41.0	35.3	66.7	72.3	62.2
7/4/2016	11:36:00 PM	42.2	56.9	37.2	48.8		55.2	45.1	48.5		51.3	-	54.4	58.5	-	37.0	45.1	34.6	66.5	71.9	61.4
7/4/2016	11:37:00 PM	55.1	77.8	37.3	53.3		65.0	45.3	48.4		50.2	-	54.7	58.3	-	37.7	43.3	34.5	66.3	70.1	60.6
7/4/2016	11:38:00 PM	55.1	77.2	35.6	47.5		49.6	45.7	49.1		51.8	-	54.0	57.0	-	37.5	41.0	35.3	66.9	73.2	61.9
7/4/2016	11:39:00 PM	37.6	46.9	33.4	48.0		53.2	46.0	47.8		49.5	-	55.0	61.1	-	37.9	41.2	35.6	65.9	72.8	60.3
7/4/2016	11:40:00 PM	39.7	52.9	33.0	48.2		51.8	45.1	48.4		51.4	-	53.9	56.7	-	37.3	41.0	34.9	65.7	69.5	60.1
7/4/2016	11:41:00 PM	38.1	48.5	34.9	55.7		65.8	46.1	47.3		50.0	-	54.2	63.8	-	36.8	39.7	34.3	66.4	71.1	60.7
7/4/2016	11:42:00 PM	37.5	49.4	32.1	52.0		63.1	44.8	48.7		51.9	-	56.7	67.6	-	37.0	42.4	34.6	65.6	69.5	60.3
7/4/2016	11:43:00 PM	36.1	48.1	30.1	51.4		59.3	46.0	48.6		52.1	-	53.2	59.4	-	37.2	42.8	34.8	66.8	70.9	62.2
7/4/2016	11:44:00 PM	35.3	44.1	30.6	47.3		49.7	45.5	48.7		53.8	-	53.0	56.1	-	36.6	39.6	34.2	66.1	69.7	60.5
7/4/2016	11:45:00 PM	38.7	45.7	32.5	49.6		58.4	45.3	47.4		49.4	-	53.6	59.1	-	37.1	41.5	34.5	66.8	73.1	61.9
7/4/2016	11:46:00 PM	40.6	47.7	36.0	55.7		63.9	46.0	46.7		49.0	-	53.3	56.0	-	37.0	41.0	34.5	66.4	70.6	60.9
7/4/2016	11:47:00 PM	40.3	45.9	36.1	46.8		49.4	44.5	49.7		55.7	-	53.0	58.6	-	36.6	42.4	34.3	66.4	72.0	60.1
7/4/2016	11:48:00 PM	47.6	59.6	31.1	53.7		63.1	44.7	46.9		51.0	-	53.0	55.9	-	36.8	44.9	34.2	66.4	71.7	60.5
7/4/2016	11:49:00 PM	38.2	55.3	29.6	45.8		48.1	44.2	48.4		53.2	-	53.3	57.3	-	36.3	41.1	34.2	66.9	71.8	63.2
7/4/2016	11:50:00 PM	33.8	43.8	29.5	48.2		53.3	44.8	49.0		54.5	-	53.1	56.1	-	36.4	40.1	34.6	66.5	72.0	61.2
7/4/2016	11:51:00 PM	42.7	51.9	32.2	51.2		56.3	47.2	52.8		58.3	-	53.3	56.2	-	36.5	41.9	34.4	66.9	70.9	63.6
7/4/2016	11:52:00 PM	41.3	58.6	34.2	47.9		50.9	45.8	47.7		51.1	-	53.4	57.9	-	36.6	42.6	34.6	66.5	70.7	63.3
7/4/2016	11:53:00 PM	40.5	53.0	34.5	47.3		49.6	45.1	47.4		52.1	-	53.6	57.0	-	36.6	41.3	34.4	66.3	72.7	60.5
7/4/2016	11:54:00 PM	50.5	58.9	40.8	50.3		55.4	46.8	47.6		50.7	-	54.1	58.8	-	36.4	39.7	34.4	66.4	70.6	59.9
7/4/2016	11:55:00 PM	49.0	64.7	33.7	50.0		55.4	46.6	47.7		49.8	-	52.3	58.3	-	36.0	41.0	33.7	66.1	71.2	60.9
7/4/2016	11:56:00 PM	44.5	63.6	32.9	50.2		52.4	46.9	45.4		52.9	-	52.4	55.1	-	36.6	40.4	34.2	66.5	71.3	61.0
7/4/2016	11:57:00 PM	42.8	62.8	31.6	47.3		49.2	45.4	46.0		48.7	-	52.5	55.8	-	36.7	42.1	34.8	66.4	70.9	61.2
7/4/2016	11:58:00 PM	40.7	56.1	31.1	47.1		49.0	45.6	47.6		52.4	-	52.7	55.7	-	37.4	43.4	35.1	66.7	72.5	60.9
7/4/2016	11:59:00 PM	53.5	72.5	30.4	48.2		64.5	44.8	45.7		50.1	-	53.8	56.4	-	37.2	40.7	35.1	66.6	71.2	61.5
7/5/2016	12:00:00 AM	46.6	59.4	30.6	47

7/5/2016	12:17:00 AM	32.7	41.6	30.4	48.2		58.3	43.4	49.5		56.6	-	54.3	62.0	-	36.7	42.8	34.2	65.7	70.4	60.5
7/5/2016	12:18:00 AM	36.5	39.4	31.3	49.0		62.2	44.9	46.7		50.5	-	53.0	55.7	-	36.6	41.5	34.5	65.9	70.1	61.0
7/5/2016	12:19:00 AM	37.2	41.8	34.9	47.5		49.3	45.4	46.5		49.8	-	53.7	56.5	-	37.2	44.6	34.4	66.2	69.7	62.2
7/5/2016	12:20:00 AM	38.3	48.6	36.1	45.3		47.7	43.4	46.9		53.2	-	53.6	60.2	-	36.9	42.9	34.9	66.9	71.8	62.7
7/5/2016	12:21:00 AM	37.2	46.4	32.3	45.7		49.3	43.2	45.6		49.6	-	53.0	56.5	-	37.7	42.3	35.4	65.8	68.8	62.1
7/5/2016	12:22:00 AM	34.1	41.7	31.1	45.9		50.0	43.4	43.5		45.2	-	53.3	56.8	-	37.0	41.6	35.0	66.2	70.7	60.9
7/5/2016	12:23:00 AM	33.9	40.8	30.6	47.8		50.3	46.0	43.0		45.2	-	53.5	59.1	-	38.1	52.6	34.9	66.2	70.0	62.8
7/5/2016	12:24:00 AM	45.2	67.2	32.1	47.4		49.8	45.6	43.7		46.0	-	52.7	57.9	-	38.0	41.4	35.0	65.8	69.5	61.8
7/5/2016	12:25:00 AM	47.5	63.4	31.1	45.8		52.0	43.0	43.7		46.2	-	54.1	60.3	-	37.6	44.9	35.0	65.7	70.2	60.2
7/5/2016	12:26:00 AM	32.1	38.6	29.6	45.3		48.1	43.0	43.8		49.7	-	53.7	59.6	-	37.2	40.5	35.4	66.1	68.9	60.4
7/5/2016	12:27:00 AM	31.6	38.2	28.4	46.2		48.5	44.2	44.2		46.6	-	52.9	55.5	-	36.5	44.1	34.5	65.7	69.4	62.1
7/5/2016	12:28:00 AM	31.9	38.1	29.1	46.3		49.3	43.5	45.0		47.9	-	52.5	57.5	-	36.9	46.4	34.8	65.8	71.4	61.1
7/5/2016	12:29:00 AM	33.2	38.2	30.1	45.9		48.6	43.6	45.9		48.3	-	51.5	54.4	-	36.8	40.0	34.4	66.0	70.0	61.8
7/5/2016	12:30:00 AM	31.7	38.2	27.6	46.2		49.2	42.7	43.1		45.4	-	50.9	55.1	-	36.1	40.5	33.5	65.9	69.0	62.5
7/5/2016	12:31:00 AM	32.4	39.1	29.1	45.8		49.1	43.8	47.9		55.4	-	52.1	57.0	-	36.8	40.5	34.3	66.0	69.2	62.0
7/5/2016	12:32:00 AM	34.0	52.3	30.3	44.7		50.1	42.0	46.4		54.4	-	49.4	52.4	-	37.9	42.7	35.3	65.8	69.0	62.9
7/5/2016	12:33:00 AM	44.2	58.2	34.6	47.1		60.8	41.9	44.3		48.6	-	51.1	59.9	-	36.9	40.2	34.9	66.0	71.1	62.4
7/5/2016	12:34:00 AM	41.9	49.0	35.6	46.1		48.4	42.8	44.2		46.7	-	52.5	58.2	-	37.1	44.1	34.5	66.3	70.2	62.7
7/5/2016	12:35:00 AM	39.1	50.8	34.0	46.4		49.1	43.8	43.8		46.0	-	50.2	55.2	-	36.9	40.7	34.6	65.6	70.9	60.7
7/5/2016	12:36:00 AM	37.5	41.4	34.6	44.4		47.3	42.3	43.8		48.0	-	51.9	59.1	-	37.1	42.0	34.6	66.0	69.8	61.5
7/5/2016	12:37:00 AM	35.1	39.9	32.2	45.7		48.6	43.3	42.9		46.6	-	51.3	60.5	-	37.3	40.6	34.6	65.9	70.1	62.4
7/5/2016	12:38:00 AM	34.7	45.8	29.8	45.3		49.0	42.9	42.7		44.7	-	52.4	60.8	-	36.5	41.1	34.0	66.2	70.0	61.7
7/5/2016	12:39:00 AM	35.9	43.6	31.1	45.1		48.6	42.3	42.3		45.8	-	50.4	56.6	-	36.5	40.1	34.2	64.9	69.8	60.9
7/5/2016	12:40:00 AM	37.3	45.4	34.3	46.2		48.5	43.7	44.3		46.4	-	50.3	54.9	-	35.9	39.2	33.3	65.3	69.3	61.1
7/5/2016	12:41:00 AM	71.8	80.7	34.8	46.7		50.3	44.7	44.4		47.6	-	50.4	55.8	-	36.3	40.7	33.7	65.3	68.8	61.5
7/5/2016	12:42:00 AM	67.9	77.9	33.3	46.4		50.7	44.5	43.9		47.0	-	51.5	55.5	-	36.4	39.0	34.0	66.6	71.5	62.0
7/5/2016	12:43:00 AM	48.1	60.3	31.5	46.4		50.2	44.2	44.9		50.9	-	50.9	55.2	-	36.4	39.4	34.2	64.9	69.6	60.4
7/5/2016	12:44:00 AM	45.1	57.8	29.8	45.9		52.1	43.4	43.2		48.4	-	49.4	53.5	-	37.0	41.6	34.8	66.0	69.7	61.5
7/5/2016	12:45:00 AM	41.0	54.6	33.5	44.9		47.7	42.8	43.2		46.4	-	50.1	53.7	-	36.8	41.5	34.8	66.1	71.4	61.9
7/5/2016	12:46:00 AM	37.0	44.7	34.9	44.4		48.2	41.3	42.4		45.2	-	48.7	52.3	-	37.5	49.9	34.9	65.2	70.7	61.2
7/5/2016	12:47:00 AM	37.2	47.7	35.3	45.5		48.5	43.4	42.9		47.3	-	53.9	59.5	-	37.2	42.4	34.8	64.6	67.3	60.9
7/5/2016	12:48:00 AM	36.2	39.2	31.3	44.5		46.8	42.0	43.9		47.8	-	52.3	56.9	-	37.3	47.1	35.0	65.4	69.7	61.5
7/5/2016	12:49:00 AM	32.2	44.4	29.1	43.8		46.8	41.6	44.0		46.7	-	56.1	65.3	-	36.6	41.1	34.4	65.5	69.6	61.6
7/5/2016	12:50:00 AM	32.4	38.5	30.4	45.4		51.1	43.1	42.7		44.9	-	50.6	54.0	-	36.7	41.1	34.5	66.6	74.1	62.6
7/5/2016	12:51:00 AM	32.7	44.4	28.9	45.3		50.2	42.9	41.8		43.7	-	51.7	57.2	-	37.1	40.7	35.1	66.2	71.2	61.7
7/5/2016	12:52:00 AM	32.3	42.1	29.5	45.0		48.5	41.6	41.7		44.1	-	49.6	53.7	-	37.3	43.8	35.4	65.6	70.8	62.4
7/5/2016	12:53:00 AM	35.4	45.2	31.1	45.0		47.9	42.9	42.5		44.9	-	50.9	54.3	-	37.4	40.7	35.0	65.7	70.8	62.1
7/5/2016	12:54:00 AM	34.6	44.0	31.5	44.1		49.2	41.2	43.0		45.9	-	51.2	59.2	-	37.8	42.0	35.6	65.2	71.2	60.2
7/5/2016	12:55:00 AM	33.2	43.4	31.3	44.3		47.7	42.0	44.5		48.2	-	50.9	55.0	-	38.7	43.2	36.0	65.6	68.9	63.4
7/5/2016	12:56:00 AM	33.1	38.4	30.9	46.1		48.9	43.8	44.8		51.3	-	51.6	55.8	-	37.9	41.7	35.5	65.3	71.0	61.0
7/5/2016	12:57:00 AM	34.0	38.6	31.6	45.8		48.2	43.6	43.6		48.1	-	50.1	55.6	-	37.8	42.2	35.4	65.9	69.2	62.8
7/5/2016	12:58:00 AM	34.4	39.2	32.5	46.3		48.9	44.1	43.5		48.0	-	51.7	56.6	-	37.9	40.9	35.5	66.0	70.9	61.7
7/5/2016	12:59:00 AM	35.6	44.0	33.0	47.4		49.4	44.7	41.6		45.3	-	49.6	58.4	-	38.2	41.4	35.4	65.6	69.6	61.3
7/5/2016	1:00:00 AM	34.0	38.3	32.1	46.1	49.3	48.2	43.9	44.1	43.6	49.7	-	51.2	55.9	-	38.5	42.2	36.3	64.9	67.1	62.2
7/5/2016	1:01:00 AM	35.1	40.5	32.1	47.1		55.5	43.7	43.9		50.5	-	49.4	55.4	-	37.9	40.8	35.3	65.4	69.1	61.9
7/5/2016	1:02:00 AM	32.4	38.1	29.8	49.3		62.3	42.9	42.2		43.6	-	48.1	52.1	-	38.0	41.2	36.0	65.5	69.6	62.3
7/5/2016	1:03:00 AM	31.8	38.5	28.6	45.5		50.4	43.1	42.5		46.3	-	48.8	52.3	-	37.9	41.8	35.8	65.2	69.3	62.8
7/5/2016	1:04:00 AM	32.8	38.0	30.6	45.4		48.2	43.4	42.0		44.8	-	51.1	58.3	-	37.8	45.1	35.1	65.6	70.5	60.7
7/5/2016	1:05:00 AM	32.2	38.1	29.3	45.0		48.5	43.3	42.5		44.5	-	49.9	56.0	-	37.6	41.1	35.0	64.8	69.1	60.9
7/5/2016	1:06:00 AM	32.6	37.3	30.9	44.9		53.2	42.9	44.1		48.8	-	51.9	59.9	-	37.8	44.3	35.8	65.0	69.2	61.7
7/5/2016	1:07:00 AM	40.4	48.5	30.4	45.9		48.4	44.0	41.7		43.9	-	49.8	54.5	-	37.8	41.2	34.6	65.4	68.7	62.7
7/5/2016	1:08:00 AM	34.7	42.1	31.2	45.5		48.0	43.7	43.3		53.4	-	50.2	54.6	-	37.9	42.4	35.5	65.1	71.7	61.9
7/5/2016	1:09:00 AM	33.3	44.1	30.9	45.2		49.4	43.5	42.2		48.5	-	48.7	54.8	-	37.8	40.9	35.1	66.2	70.9	63.6
7/5/2016	1:10:00 AM	33.5	47.0	31.2	45.2		46.8	43.5	41.4		43.4	-	48.5	56.1	-	38.3	43.6	35.4	65.8	70.5	60.3
7/5/2016	1:11:00 AM	34.5	41.5	30.4	47.2		52.0	44.4	44.1		52.2	-	51.2	55.2	-	37.9	43.6	35.6	65.5	70.3	62.6
7/5/2016	1:12:00 AM	34.8	42.3	30.3	46.7		50.7	44.4	41.6		44.0	-	50.2	55.1	-	37.9	42.1	35.8	65.4	69.7	62.3
7/5/2016	1:13:00 AM	33.3	41.5	30.1	46.1		51.0	43.5	42.1		44.9	-	49.8	54.0	-	38.2	44.5	36.0	65.1	69.6	62.2
7/5/2016	1:14:00 AM	38.1	52.3	31.9	46.2		48.3	43.9	44.5		50.4	-	51.1	60.9	-	38.3	42.8	35.8	65.6	70.4	62.2
7/5/2016	1:15:00 AM	35.9	38.9	33.9	45.1		48.6	41.3	42.1		45.0	-	49.9	56.9	-	37.7	43.6	35.1	65.4	73.6	61.3
7/5/2016	1:16:00 AM	39.7	57.8	34.9	45.2		48.5	41.9	42.3		44.5	-	48.8	52.6	-	37.9	42.6	35.4	65.7	69.4	61.6
7/5/2016	1:17:00 AM	36.0	42.2	32.2	45.4		48.4	42.8	42.5		46.6	-	50.3	57.1	-	38.8	48.0	36.4	64.5	69.5	60.5
7/5/2016	1:18:00 AM	34.5	41.4	29.1	45.4		49.8	42.8	43.5		46.9	-	49.6	54.2	-	38.2	45.2	35.7	65.3	68.7	62.8
7/5/2016	1:19:00 AM	34.5	43.1	29.3	45.4		49.5	42.7	43.4		48.6	-	51.0	60.4	-	38.4	43.7	35.7	64.9	69.9	62.0
7/5/2016	1:20:00 AM	33.9	43.9	29.5	45.0		48.5	42.6	43.7		47.6	-	51.0	55.8	-	38.6	43.9	35.7	65.0	68.2	62.0
7/5/2016	1:21:00 AM	33.6	43.1	28.9	44.4		47.2	42.2	45.6		54.9	-	48.4	54.1	-	39.9	42.7	36.8	65.6	69.6	62.8
7/5/2016	1:22:00 AM	32.9	37.3	29.3	45.1		49.0	43.1	41.7		43.8	-	48.6	58.2	-	39.3	44.9	36.2	65.4	69.4	63.1
7/5/2016	1:23:00 AM	35.2	53.2	29.5	44.3		46.9	42.0	43.0		45.5	-	48.7	53.1	-	38.7	42.1	36.2	64.6	68.1	62.2
7/5/2016	1:24:00 AM	32.5	41.7	29.5	43.5		46.5	41.2	46.3		54.3	-	51.3	60.6	-	38.3	41.7	35.8	65.5	68.7	61.8
7/5/2016	1:25:00 AM	34.1	38.2	30.9	46.0		49.3	42.3	43.8		47.5	-	49.6	54.6	-	38.4	42.1	35.6	65.5	69.4	62.5
7/5/2016	1:26:00 AM	35.3	50.7	30.8	45.0		47.8	42.4	44.9		50.6	-	48.3	52.6	-	39.3	44.5	36.2	64.3	68.0	62.3
7/5/2016	1:27:00 AM	33.9	39.2	31.2	45.0		47.1	42.4	45.8		50.6	-	48.5	54.4	-	39.0	41.9	36.2	64.9	68.1	61.8
7/5/2016	1:28:00 AM	33.3	40.8	30.8	44.4		48.2	42.4	44.7		48.5	-	50.1	54.9	-	38.5	44.3	36.1	65.2	69.3	62.5
7/5/2016	1:29:00 AM	34.6	39.0	31.8	46.2		49.0	43.2	43.2		45.6	-	50.6	54.3	-	38.6	42.2	36.0	64.5	68.4	59.8
7/5/2016	1:30:00 AM	44.1	55.7	32.9	46.3		48.4	44.2	42.8		45.9	-	49.1	56.9	-	39.1	42.8	35.7	65.1	68.7	62.9
7/5/2016	1:31:00 AM	35.4	45.2	33.4	44.8		47.8	42.8	42.3		44.9	-	51.4	58.3	-	39.5	43.1	35.8	64.9	67.4	62.2
7/5/2016	1:32:00 AM	36.2	39.8	33.7	52.1		59.6	42.7	43.2		46.1	-	48.9	55.7	-	38.8	41.9	35.8	65.1	68.4	62.1
7/5/2016	1:33:00 AM	35.3	40.7	32.7	57.7		64.4	42.4	45.5		51.5	-	51.0	59.4	-	38.6	41.7	36.3	64.8	68.9	61.5
7/5/2016	1:34:00 AM	34.5	39.2	31.3	44.5		47.0	42.3	43.8		46.2	-	50.3	56.5	-	39.6	44.3	37.0	64.0	68.6	60.8
7/5/2016	1:35:00 AM	33.0	38.6	30.6	44.9		49.1	43.0	44.1		47.3	-	49.3	54.2	-	40.0	42.4	37.0	64.9	67.6	61.3
7/5/2016	1:36:00 AM	33.0	37.7	30.9	47.5		54.8	43.7	44.2		46.8	-	47.7	54.4	-	38.9	43.5	36.2	64.6	68.2	61.7
7/5/2016	1:37:00 AM	35.7	43.0	30.8	46.9		52.4	44.6	46.0		49.4	-	48.4	54.7	-	37.9	41.7	35.5	63.9	66.8	61.2
7/5/2016	1:38:00 AM	38.5	42.1	35.0	45.7		48.9	43.2	43.5		46.2	-	49.0	51.8	-	40.9	44.7	36.5	64.7	67.8	62.4
7/5/2016	1:39:00 AM	35.6	39.5	33.1	43.7		46.9	41.5	42.2		44.6	-	48.7	54.4	-	39.9	43.7	37.3	64.5	66.8	61.9
7/5/2016	1:40:00 AM	33.3	38.6	31.3	45.4		48.9	43.0	42.0		43.9	-	47.1	51.5	-	39.1	42.8	35.5	64.9	68.7	62.8
7/5/2016	1:41:00 AM	37.2	40.5	34.2	44.7		48.5	42.6	43.5		47.0	-	48.3	53.2	-	38.5	43.5	35.8	63.9	68.6	60.6
7/5/2016	1:42:00 AM	38.6	40.6	34.9	45.7		50.3	42.6	46.4		54.3	-	49.3	57.6	-	38.2	41.7	35.8	64.0	66.8	60.8
7/5/2016	1:43:00 AM	36.9	40.7	34.5	45.5		50.0	42.6	46.7		51.9	-	51.2	57.0	-	39.4	42.9	36.6	64.6	67.2	61.8
7/5/2016	1:44:00 AM	38.8	41.0	37.3	59.7		67.0	46.5	42.4		44.6	-	50.7	56.6	-	38.8	42.4	36.3	65.6	69.4	62.4
7/5/2016	1:45:00 AM	39.2	44.3	37.2	50.5		58.9	42.4	42.9		45.2	-	48.6	53.5	-	39.1	42.3	36.6	64.3	67.7	62.3
7/5/2016	1:46:00 AM	41.9	58.3	37.1	45.8		49.3	43.5	43.4		46.7	-	52.0	56.5	-	38.8	43.0	35.7	64.4	68.2	62.0
7/5/2016	1:47:00 AM	40.1	52.7	35.8	44.6		48.4	42.2	42.4		45.8	-	49.8	54.8	-	37.9	45.6	35.7	64.2	67.5	61.9
7/5/2016	1:48:00 AM	42.5	55.5	35.8	44.7		49.3	42.7	43.1		45.7	-	48.3	53.2	-	37.7	41.1	35.0	64.7	68.5	61.7
7/5/2016	1:49:00 AM	38.4	49.7	36.0	44.6		46.8	42.9	43.2		52.1	-	49.7	56.2	-	39.0	44.1	35.4	64.3	67.3	61.2
7/5/2016	1:50:00 AM	37.9	47.3	34.9	44.8		50.9	42.6	41.4		44.0	-	48.4	60.8	-	38.2	41.5	35.4	64.3	67.5	62.1
7/5/2016	1:51:00 AM	41.4	46.2	36.5	45.4		48.1	42.9	42.6		45.8	-	47.1	51.1	-	37.9	41.2	34.5	63.7	67.1	61.3
7/5/2016	1:52:00 AM	38.4	43.6	35.5	48.8		57.8	43.6	42.2		46.5	-	47.7	53.6	-	38.0	46.6	35.5	64.7	67.3	62.4
7/5/2016	1:53:00 AM	37.7	43.8	34.3	57.8		65.9	45.4	44.2		50.7	-	47.2	54.3	-	37.7	42.0	34.2	65.2	68.6	62.3
7/5/2016	1:54:00 AM	38.1	41.7	34.0	45.2		49.2	42.1	46.6		59.1	-	46.3	49.6	-	37.3	41.5	34.9	64.6	68.0	62.2
7/5/2016	1:55:00 AM	38.1	44.2	33.5	46.2		51.0	43.9	42.1		46.7	-	47.2	52.7	-	37.8	41.8	34.3	64.7	69.2	61.4
7/5/2016	1:56:00 AM	39.0	55.4	33.5	46.6		50.1	44.1	43.7		52.1	-	43.9	49.8	-	38.6	42.4	35.5	64.8	69.5	62.0
7/5/2016	1:57:00 AM	36.5	42.1	32.1	47.2		49.4	44.8	43.6		52.2	-	45.0	47.7	-	38.3	41.5	35.1	63.3	66.7	61.4
7/5/2016	1:58:00 AM	35.9	41.5	31.6	58.0		66.0	46.2	41.8		46.2	-	44.7	48.8	-	38.5	42.4	35.6	64.5	69.1	61.2
7/5/2016	1:59:00 AM	39.5	49.7	32.3	48.7		56.6	44.1	41.9		44.3	-	44.2	51.3	-	37.5	41.2	34.9	64.8	68.7	61.6
7/5/2016	2:00:00 AM	40.1	51.6	33.0	44.5	45.6	48.5	42.1	41.2	43.1	43.8	-	43.9	47.7	-	37.8	42.6	35.0	64.2	68.7	60.9
7/5/2016	2:01:00 AM	38.7	48.3	32.6	45.1		47.5	42.2	41.3		44.7	-	44.5	48.0	-	39.4	45.3	35.0	64.1	67.0	61.2
7/5/2016	2:02:00 AM	33.9	43.4	31.6	45.2		48.9	42.3	42.6		45.6	-	44.3	50.9	-	38.0	41.8	35.1	63.5	66.0	61.3
7/5/2016	2:03:00 AM	37.5	46.4	32.1	46.2		50.6	44.4	45.2		52.9	-	45.8	53.6	-	37.2	42.8	34.8	63.3	66.1	61.4
7/5/2016	2:04:00 AM	36.0	41.1	31.1	48.5		63.8	44.1	43.6		47.1	-	46.2	52.5	-	37.7	42.4	35.1	63.8	67.2	61.4
7/5/2016	2:05:00 AM	33.7	38.6	31.5	45.6		49.3	43.0	44.2		47.3	-	42.7	44.4	-	37.3	41.9	33.8	63.8	67.4	61.4
7/5/2016	2:06:00 AM	36.6	39.3	31.5	45.7		49.4	42.7	42.6		45.5	-	43.8	53.9	-	38.0	43.2	34.0	64.0	65.9	62.3
7/5/2016	2:07:00 AM	36.6	40.1	31.8	45.2		48.8	42.1	42.1		44.0	-	43.2	53.5	-	38.3	41.9	35.3	64.0	65.9	62.3
7/5/2016	2:08:00 AM	33.7	39.0	31.3	44.1		46.3	42.1	43.5		46.0	-	42.2	49.0	-	37.2	41.2	34.6	63.4	65.5	61.7
7/5/2016	2:09:00 AM	33.3	36.1	31.2	44.9		49.5	42.4	42.8		45.8	-	41.7	47.4	-	36.8	43.1	34.2	63.5	65.4	61.4
7/5/2016	2:10:00 AM	33.3	40.5	31.1	45.5		49.3	43.0	41.1		42.6	-	43.0	48.4	-	37.5	40.6	34.8	63.8	67.5	60.6
7/5/2016	2:11:00 AM	37.5	43.4	31.8	45.8		48.9	43.5	41.0		43.0	-	42.8	49.3	-	36.7	40.8	34.3	63.4	67.7	61.3
7/5/2016	2:12:00 AM	34.1	40.5	31.5	44.5		47.1	41.6	41.5		46.7	-	44.6	49.1	-	36.5	40.7	34.2	63.0	65.5	60.8
7/5/2016	2:13:00 AM	34.3	42.0	30.1	45.6		49.0	43.7	43.7		48.1	-	43.5	47.5	-	37.4	44.3	34.2	63.1	66.3	60.6
7/5/2016	2:14:00 AM	37.8	42.2	33.1	45.5		48.1	43.8	42.9		46.0	-	44.3	54.0	-	38.7	49.8	34.4	63.0	65.1	61.2
7/5/2016	2:15:00 AM	36.1	40.7	34.3	45.8		48.1	43.8	42.5		44.6	-	46.9	54.1	-	38.3	41.4	35.5	63.7	66.2	61.0
7/5/2016	2:16:00 AM	36.4	38.7	34.6	46.0		48.3	44.0	41.2		44.9	-	45.3	50.7	-	37.1	40.2	33.7	63.9	67.0	61.7
7/5/2016	2:17:00 AM	35.1	38.1	30.6	44.9		48.1	42.0	40.9		43.8	-	44.8	48.8	-	37.4	40.9	35.0	63.6	66.7	61.4
7/5/2016	2:18:00 AM	35.6	39.2	29.5	45.7		48.5	43.0	41.0		43.4	-	44.9	50.7	-	38.2	42.8	34.5	63.0	66.6	60.8
7/5/2016	2:19:00 AM	36.2	39.5	30.3	46.1		49.0	43.7	41.5		45.0	-	42.9	46.1	-	37.1	45.8	34.3	62.9	65.3	60.7
7/5/2016	2:20:00 AM	31.3	36.2	29.1	46.1		48.7	44.3	43.2		47.1	-	41.9	50.1	-	38.0	44.1	34.5	63.2	65.5	60.8
7/5/2016	2:21:00 AM	31.8	37.1	29.5	45.2		46.9	43.1	41.9		44.1	-	42.0	44.8	-	38.3	44.2	35.3	62.8	65.5	60.9
7/5/2016	2:22:00 AM	31.5	36.8	28.7	45.9		47.7	44.0	43.6		47.7	-	43.1	46.5	-	39.3	44.3	35.4	62.4	64.5	60.7
7/5/2016	2:23:00 AM	31.7	36.5	29.5	46.6		50.2	44.2	45.5		48.7	-	42.9	47.0	-	40.0	43.1	36.5	62.9	65.6	60.8
7/5/2016	2:24:00 AM	31.3	35.5	29.1	45.9		48.4	43.2	44.4		49.1	-	44.8	49.1	-	37.9	44.3	34.6	64.2	67.1	61.3
7/5/2016	2:25:00 AM	31.2	36.6	27.8	46.2		48.6	43.0	44.1		49.1	-	45.6	50.2	-	38.0	43.5	35.3	62.9	65.7	60.3
7/5/2016	2:26:00 AM	31.9	36.1	30.0

7/5/2016	2:43:00 AM	33.5	40.8	30.9	46.0		48.7	43.4	40.4		42.1	-	48.5	63.5	-	38.2	43.1	35.5	62.5	64.4	60.1
7/5/2016	2:44:00 AM	33.4	37.3	31.3	46.0		49.4	43.7	41.4		43.1	-	49.5	60.7	-	38.3	42.8	35.6	62.4	64.6	60.3
7/5/2016	2:45:00 AM	33.0	38.3	31.5	45.7		49.0	42.3	41.9		44.9	-	46.5	50.2	-	39.4	46.1	35.6	62.1	63.9	60.1
7/5/2016	2:46:00 AM	32.5	35.4	30.3	44.8		48.1	41.6	44.3		50.2	-	45.7	51.0	-	37.3	43.0	34.6	62.5	65.0	60.4
7/5/2016	2:47:00 AM	32.8	38.2	31.2	45.3		48.4	43.2	42.7		44.8	-	45.3	51.9	-	37.6	41.5	34.9	62.8	65.0	61.1
7/5/2016	2:48:00 AM	34.2	40.2	30.0	45.7		55.0	43.5	41.9		46.2	-	44.9	49.8	-	36.8	42.8	34.5	62.8	66.0	59.8
7/5/2016	2:49:00 AM	36.9	39.7	34.8	45.5		51.1	43.6	41.6		44.5	-	49.2	62.0	-	37.0	42.7	34.6	62.7	64.3	60.5
7/5/2016	2:50:00 AM	37.6	40.4	34.3	45.9		48.7	44.1	44.4		48.3	-	44.5	53.2	-	36.4	42.3	34.5	62.5	64.5	60.4
7/5/2016	2:51:00 AM	36.4	40.6	31.2	45.2		48.3	43.0	42.9		48.6	-	43.3	47.4	-	36.3	40.6	34.3	62.3	64.2	60.2
7/5/2016	2:52:00 AM	32.4	38.0	29.5	46.4		48.9	44.4	41.4		43.1	-	43.5	50.0	-	36.2	42.4	34.2	62.8	65.1	60.6
7/5/2016	2:53:00 AM	33.9	37.8	31.1	46.3		48.6	43.5	41.2		45.0	-	44.6	51.5	-	36.0	42.8	34.3	62.6	64.8	60.4
7/5/2016	2:54:00 AM	31.7	38.7	29.3	45.9		49.3	43.5	41.1		47.5	-	44.0	47.4	-	41.5	60.0	35.1	62.9	65.4	60.8
7/5/2016	2:55:00 AM	32.1	36.2	29.6	45.8		49.5	43.1	40.4		43.3	-	42.7	49.0	-	39.5	49.8	35.0	63.4	65.5	61.0
7/5/2016	2:56:00 AM	31.5	38.5	29.5	45.3		49.0	43.5	42.7		46.1	-	44.9	53.5	-	36.8	47.9	34.4	62.8	66.5	60.9
7/5/2016	2:57:00 AM	34.9	39.1	29.6	45.4		47.9	43.6	41.3		43.4	-	53.7	67.5	-	43.7	58.6	34.0	62.5	64.9	60.8
7/5/2016	2:58:00 AM	30.7	36.5	28.0	45.9		49.5	44.0	41.5		44.6	-	43.6	45.9	-	36.0	42.3	33.4	61.7	64.1	59.1
7/5/2016	2:59:00 AM	30.1	35.3	28.0	45.7		49.4	42.8	40.4		42.8	-	45.9	51.3	-	41.2	55.9	33.0	61.4	63.8	59.6
7/5/2016	3:00:00 AM	30.8	37.3	28.9	46.2	46.2	48.7	44.0	41.1	42.1	42.4	-	43.5	47.3	-	39.0	53.9	33.9	61.8	63.8	60.0
7/5/2016	3:01:00 AM	31.3	36.9	29.3	46.3		50.2	43.5	41.8		47.3	-	42.7	48.0	-	37.5	42.1	33.5	61.4	63.6	59.9
7/5/2016	3:02:00 AM	30.5	36.2	28.2	46.4		49.5	43.2	41.6		43.0	-	43.3	50.2	-	35.8	41.2	33.3	61.6	64.1	59.3
7/5/2016	3:03:00 AM	31.2	37.2	29.6	44.4		48.8	41.6	40.8		43.0	-	45.5	50.3	-	35.1	43.4	33.1	61.6	63.5	59.9
7/5/2016	3:04:00 AM	35.1	38.7	29.5	45.6		48.5	43.0	40.7		42.6	-	44.1	49.4	-	36.1	47.3	34.0	62.7	64.9	60.4
7/5/2016	3:05:00 AM	37.3	40.6	30.0	45.1		47.8	42.9	41.5		44.5	-	43.5	46.0	-	37.5	41.7	33.7	62.3	64.4	60.7
7/5/2016	3:06:00 AM	32.5	38.2	30.6	46.4		51.1	44.5	40.9		43.5	-	43.7	50.6	-	36.2	42.0	33.3	62.1	64.9	59.5
7/5/2016	3:07:00 AM	32.5	37.2	30.8	45.9		48.6	44.4	41.8		44.7	-	42.7	45.6	-	36.2	42.0	33.5	62.7	65.3	59.9
7/5/2016	3:08:00 AM	32.1	36.8	30.1	45.6		48.3	42.6	40.7		42.6	-	42.3	46.5	-	36.7	44.0	33.3	62.4	64.8	60.2
7/5/2016	3:09:00 AM	32.5	39.1	30.3	44.5		46.4	42.7	40.9		44.0	-	42.2	46.9	-	36.2	42.6	32.7	61.8	64.2	59.9
7/5/2016	3:10:00 AM	31.8	37.4	29.5	45.6		47.8	43.5	41.2		43.0	-	47.3	53.8	-	35.3	42.3	32.3	61.5	63.6	60.1
7/5/2016	3:11:00 AM	33.1	39.9	30.8	46.0		48.3	44.2	41.0		44.4	-	49.5	52.3	-	33.9	39.1	31.9	61.4	64.4	58.2
7/5/2016	3:12:00 AM	36.4	40.2	30.9	46.7		49.8	45.0	42.1		47.0	-	49.2	52.2	-	35.0	38.5	32.6	62.6	64.6	60.6
7/5/2016	3:13:00 AM	36.8	39.6	30.4	45.6		49.1	43.3	42.9		48.5	-	49.3	53.0	-	35.0	40.8	32.6	62.0	64.2	60.2
7/5/2016	3:14:00 AM	31.6	36.9	27.7	45.8		48.4	44.1	41.2		43.6	-	49.3	53.1	-	35.0	39.8	33.1	62.7	66.2	60.0
7/5/2016	3:15:00 AM	31.8	40.2	29.3	46.4		49.5	44.6	41.3		44.2	-	49.6	52.8	-	34.3	42.1	32.3	62.0	64.6	59.5
7/5/2016	3:16:00 AM	32.0	37.2	29.5	45.5		47.6	42.2	42.2		45.4	-	49.4	52.9	-	37.7	43.0	32.6	61.9	64.5	59.5
7/5/2016	3:17:00 AM	32.3	36.3	30.1	43.6		46.9	41.1	41.1		42.7	-	49.9	52.9	-	35.3	38.5	32.9	62.6	65.2	60.8
7/5/2016	3:18:00 AM	35.5	39.4	30.1	45.7		48.3	43.3	41.3		43.4	-	49.6	52.7	-	34.0	44.2	31.8	61.9	64.2	59.8
7/5/2016	3:19:00 AM	37.2	39.3	34.8	45.8		49.3	43.7	42.8		46.9	-	50.2	55.2	-	35.4	43.5	32.6	61.8	64.1	60.2
7/5/2016	3:20:00 AM	35.8	38.0	34.2	45.6		48.3	43.1	41.4		42.7	-	49.3	53.0	-	37.1	43.3	33.5	62.5	65.4	60.2
7/5/2016	3:21:00 AM	42.1	52.7	34.8	45.6		48.7	42.7	40.9		44.7	-	49.8	52.9	-	37.6	41.8	33.5	61.6	63.9	59.3
7/5/2016	3:22:00 AM	37.0	41.1	34.2	45.7		48.2	43.7	40.7		42.8	-	50.2	53.6	-	35.9	42.2	33.0	61.6	63.6	59.9
7/5/2016	3:23:00 AM	35.4	39.4	33.4	45.2		48.6	43.2	40.3		44.1	-	49.8	53.3	-	35.8	41.5	32.1	62.7	65.0	60.2
7/5/2016	3:24:00 AM	38.6	41.6	34.9	45.7		48.9	43.4	42.0		46.5	-	49.6	54.0	-	36.9	42.3	33.4	62.6	64.6	60.8
7/5/2016	3:25:00 AM	40.0	42.3	38.0	46.6		48.9	44.4	41.6		46.1	-	49.6	52.6	-	37.7	43.6	33.4	62.7	65.2	60.8
7/5/2016	3:26:00 AM	38.1	41.0	34.4	46.6		48.7	44.1	40.8		42.0	-	49.7	52.5	-	35.3	39.2	33.1	62.5	65.0	60.5
7/5/2016	3:27:00 AM	35.7	39.7	32.5	45.4		48.4	43.6	42.9		45.5	-	49.8	53.5	-	36.3	40.0	34.2	61.6	64.3	59.8
7/5/2016	3:28:00 AM	33.3	37.2	30.1	45.4		48.4	43.1	42.1		45.6	-	49.7	53.0	-	36.0	41.5	32.9	61.4	64.0	59.2
7/5/2016	3:29:00 AM	32.7	37.8	30.3	45.8		49.5	43.0	44.4		46.7	-	50.3	53.0	-	36.0	40.0	33.1	61.9	64.4	59.7
7/5/2016	3:30:00 AM	32.3	39.7	28.0	46.8		49.2	44.8	42.8		46.8	-	49.9	52.6	-	37.7	42.9	33.9	61.5	64.7	59.4
7/5/2016	3:31:00 AM	36.9	40.5	32.7	46.7		50.2	44.4	42.1		44.6	-	49.4	52.2	-	37.0	44.2	32.9	61.5	64.6	59.0
7/5/2016	3:32:00 AM	35.6	39.4	28.0	46.1		48.8	43.9	41.6		44.6	-	49.2	52.3	-	37.2	43.1	33.4	62.0	64.2	60.4
7/5/2016	3:33:00 AM	30.8	37.0	28.0	46.3		48.9	43.7	41.5		44.9	-	50.1	53.3	-	37.7	49.4	33.5	61.6	63.6	59.4
7/5/2016	3:34:00 AM	30.6	36.9	27.4	47.6		50.8	44.9	40.9		42.6	-	50.3	53.4	-	38.1	43.1	32.7	61.1	63.0	58.8
7/5/2016	3:35:00 AM	30.6	38.1	27.1	47.3		49.4	45.5	42.0		44.3	-	49.8	52.2	-	35.4	42.8	33.0	61.6	67.7	59.5
7/5/2016	3:36:00 AM	30.8	36.3	27.9	45.6		48.2	43.5	41.5		43.1	-	49.8	52.7	-	37.2	48.0	32.7	62.6	65.4	60.5
7/5/2016	3:37:00 AM	35.0	39.7	29.6	45.9		48.4	43.7	41.9		44.7	-	50.0	52.6	-	37.0	47.0	33.3	62.0	64.5	59.5
7/5/2016	3:38:00 AM	37.0	40.0	35.1	46.2		48.9	44.1	42.8		46.1	-	50.0	52.6	-	37.9	43.8	34.0	61.3	63.9	59.2
7/5/2016	3:39:00 AM	31.2	38.1	27.3	45.7		47.6	43.7	43.6		46.1	-	49.9	52.5	-	35.3	43.0	33.0	61.6	63.8	59.3
7/5/2016	3:40:00 AM	29.6	37.7	27.4	46.6		49.0	44.9	43.3		49.6	-	50.1	53.2	-	37.3	44.1	33.4	62.2	64.0	60.5
7/5/2016	3:41:00 AM	30.1	36.9	27.7	46.8		50.4	44.8	42.4		47.1	-	50.2	53.6	-	38.4	48.2	34.2	62.1	65.6	60.0
7/5/2016	3:42:00 AM	30.6	36.1	27.8	47.9		50.4	45.7	40.9		43.0	-	50.9	55.9	-	36.6	41.9	34.0	62.3	65.0	60.5
7/5/2016	3:43:00 AM	31.3	37.8	28.4	47.3		49.4	44.7	42.4		44.5	-	49.9	52.6	-	36.2	40.2	34.0	62.0	64.7	60.1
7/5/2016	3:44:00 AM	37.2	47.5	34.0	46.4		49.7	44.7	42.0		43.3	-	50.5	53.1	-	35.1	43.2	33.0	62.0	64.3	60.1
7/5/2016	3:45:00 AM	34.3	40.7	27.7	47.6		50.8	44.9	42.6		44.3	-	50.9	54.3	-	35.4	40.1	33.3	61.5	64.2	59.1
7/5/2016	3:46:00 AM	29.0	34.5	27.2	47.3		49.2	45.3	43.4		47.3	-	50.4	52.9	-	36.3	46.0	33.5	62.0	64.3	59.6
7/5/2016	3:47:00 AM	29.5	37.3	27.6	46.7		50.3	44.2	43.9		46.0	-	50.5	52.7	-	36.5	39.2	33.8	62.0	64.4	60.0
7/5/2016	3:48:00 AM	32.1	48.7	27.3	46.6		49.1	44.2	43.0		47.5	-	50.6	53.6	-	36.5	42.0	34.3	61.7	63.9	59.8
7/5/2016	3:49:00 AM	31.5	38.1	28.0	46.7		50.5	44.1	42.6		45.2	-	50.2	52.8	-	39.0	52.7	33.7	61.2	64.1	58.3
7/5/2016	3:50:00 AM	35.6	39.4	30.4	45.9		49.4	43.1	43.9		50.8	-	50.5	53.6	-	36.7	44.8	33.3	61.4	63.7	59.6
7/5/2016	3:51:00 AM	36.9	41.8	31.2	45.7		49.2	42.7	43.0		45.9	-	50.3	53.7	-	36.5	41.3	33.4	61.1	63.6	59.1
7/5/2016	3:52:00 AM	30.6	36.5	27.6	46.5		48.7	43.8	42.9		46.2	-	49.8	52.7	-	35.5	40.0	32.7	61.1	63.8	59.0
7/5/2016	3:53:00 AM	34.1	38.2	27.9	46.7		49.9	44.5	42.7		44.8	-	50.1	53.3	-	38.2	44.1	32.5	60.6	63.0	59.0
7/5/2016	3:54:00 AM	35.4	38.6	33.1	46.5		49.4	44.3	42.9		47.4	-	50.0	53.0	-	37.3	44.8	34.5	62.2	64.8	59.8
7/5/2016	3:55:00 AM	35.3	38.5	33.0	46.0		49.3	43.0	42.6		45.4	-	50.3	53.6	-	35.5	37.4	33.0	62.2	65.4	59.6
7/5/2016	3:56:00 AM	35.7	46.5	28.2	46.5		49.0	43.0	42.0		45.7	-	50.2	53.6	-	34.9	37.7	32.6	62.4	65.2	60.2
7/5/2016	3:57:00 AM	38.9	51.4	34.5	46.7		51.8	43.7	42.7		45.2	-	50.3	53.5	-	36.4	42.1	32.1	62.1	64.4	60.4
7/5/2016	3:58:00 AM	36.3	46.8	27.4	46.4		48.6	44.2	43.2		45.0	-	51.0	54.9	-	37.4	49.8	32.6	60.9	62.6	59.7
7/5/2016	3:59:00 AM	29.8	40.6	26.8	45.9		49.3	43.8	43.0		44.2	-	50.5	53.3	-	36.3	40.9	32.7	61.3	63.8	58.8
7/5/2016	4:00:00 AM	29.4	37.9	26.9	45.8	47.2	49.1	42.9	43.7	45.2	47.9	-	50.4	53.6	-	35.9	38.7	33.5	62.1	65.0	59.9
7/5/2016	4:01:00 AM	33.0	50.7	27.3	47.0		50.4	44.6	44.7		50.2	-	50.9	55.7	-	34.8	41.5	31.1	62.0	63.9	59.9
7/5/2016	4:02:00 AM	30.8	37.4	26.8	47.2		49.7	45.1	46.1		54.0	-	50.5	53.6	-	34.0	40.6	31.2	62.0	64.1	60.0
7/5/2016	4:03:00 AM	36.1	48.6	27.9	47.1		49.4	45.1	47.2		50.7	-	50.8	53.6	-	33.9	37.3	31.3	62.1	65.4	59.6
7/5/2016	4:04:00 AM	37.1	40.2	30.4	46.7		49.4	44.6	46.2		49.4	-	50.8	54.4	-	34.6	40.4	31.9	61.1	63.0	59.2
7/5/2016	4:05:00 AM	31.3	42.7	27.0	45.7		48.2	43.8	44.0		48.9	-	50.9	53.6	-	37.4	45.1	32.9	61.5	63.4	59.3
7/5/2016	4:06:00 AM	30.2	35.8	27.1	46.0		49.0	44.2	43.3		49.1	-	51.1	54.3	-	36.8	44.3	33.1	61.4	63.8	59.0
7/5/2016	4:07:00 AM	33.1	38.3	29.5	47.6		50.8	45.2	42.9		53.3	-	51.0	56.0	-	36.3	43.2	33.5	60.9	63.1	58.4
7/5/2016	4:08:00 AM	32.8	37.7	30.0	47.1		50.5	44.1	43.4		47.4	-	50.7	53.1	-	36.0	39.8	33.9	61.9	65.2	59.3
7/5/2016	4:09:00 AM	33.9	39.6	30.1	46.7		49.8	44.5	43.4		46.1	-	50.5	53.1	-	36.5	48.5	32.7	61.6	64.4	59.6
7/5/2016	4:10:00 AM	37.1	39.3	34.3	46.8		49.0	44.6	43.7		48.2	-	51.1	54.3	-	36.8	46.2	34.0	61.9	63.6	59.6
7/5/2016	4:11:00 AM	34.3	38.5	30.1	46.2		48.2	43.9	43.8		46.8	-	50.8	53.9	-	36.2	39.9	34.0	61.2	63.6	59.1
7/5/2016	4:12:00 AM	33.9	39.6	31.5	45.6		48.0	43.6	44.6		47.1	-	50.9	53.6	-	35.6	39.8	33.1	61.7	65.2	59.2
7/5/2016	4:13:00 AM	35.2	41.2	32.6	46.6		59.0	44.1	44.6		46.6	-	50.7	53.4	-	37.4	42.4	34.5	61.2	63.7	58.9
7/5/2016	4:14:00 AM	35.0	39.4	32.5	47.7		52.0	44.9	45.8		50.9	-	50.6	54.3	-	37.9	41.2	34.5	61.4	64.8	58.3
7/5/2016	4:15:00 AM	42.5	49.7	36.3	48.0		54.5	45.5	43.7		48.6	-	51.0	54.3	-	37.4	39.9	35.3	62.2	64.8	60.1
7/5/2016	4:16:00 AM	38.1	40.8	34.2	46.6		49.6	44.9	43.2		45.6	-	50.8	54.2	-	38.7	43.4	35.6	61.6	63.6	60.0
7/5/2016	4:17:00 AM	37.6	40.7	32.7	45.7		55.8	43.6	43.6		45.9	-	51.4	55.7	-	38.1	44.4	34.5	62.8	65.1	60.4
7/5/2016	4:18:00 AM	33.1	37.8	30.4	45.4		48.0	42.9	43.6		49.0	-	51.3	54.4	-	37.4	41.6	34.4	61.8	65.0	58.5
7/5/2016	4:19:00 AM	34.9	43.6	30.9	46.7		50.0	44.5	43.3		47.4	-	51.1	54.8	-	37.8	42.7	34.8	61.5	64.2	58.9
7/5/2016	4:20:00 AM	34.3	41.1	28.9	48.6		62.8	45.0	43.3		45.8	-	54.1	63.9	-	36.3	40.7	33.5	60.8	62.9	58.6
7/5/2016	4:21:00 AM	34.2	50.4	28.6	45.9		48.7	43.6	43.8		46.0	-	50.9	54.3	-	36.6	41.5	33.7	61.1	63.4	59.2
7/5/2016	4:22:00 AM	32.7	41.8	29.5	46.0		49.2	43.6	44.8		48.4	-	51.0	54.4	-	37.3	44.8	35.1	61.5	63.8	59.1
7/5/2016	4:23:00 AM	44.9	56.5	29.3	46.3		49.9	44.5	44.0		46.3	-	51.2	55.0	-	37.3	42.1	34.6	60.1	61.7	58.2
7/5/2016	4:24:00 AM	33.3	38.4	30.1	54.3		64.6	45.9	43.1		46.1	-	50.7	54.9	-	37.3	40.5	35.3	61.2	64.3	59.5
7/5/2016	4:25:00 AM	34.6	39.5	30.0	52.4		67.0	44.2	43.4		46.3	-	50.5	55.0	-	36.8	43.8	34.2	61.4	63.5	59.6
7/5/2016	4:26:00 AM	31.0	36.5	28.9	46.6		48.9	44.6	43.7		46.9	-	50.6	54.1	-	36.9	40.6	34.8	61.2	64.5	58.8
7/5/2016	4:27:00 AM	30.7	37.2	28.0	46.8		50.5	44.5	43.2		46.1	-	51.0	54.3	-	36.5	38.5	34.9	61.2	64.4	59.2
7/5/2016	4:28:00 AM	36.6	44.2	27.8	47.3		49.5	44.7	43.7		48.3	-	51.4	53.9	-	37.2	41.2	34.8	60.9	63.4	58.7
7/5/2016	4:29:00 AM	37.3	42.7	34.6	46.9		50.6	44.2	44.1		47.0	-	51.2	53.5	-	37.6	41.3	35.7	61.2	63.1	59.5
7/5/2016	4:30:00 AM	36.3	39.3	34.2	46.4		48.5	44.4	44.9		48.1	-	51.2	53.4	-	38.6	40.6	36.8	61.2	64.1	58.5
7/5/2016	4:31:00 AM	35.3	38.4	28.6	47.8		52.2	45.2	44.5		46.8	-	50.9	54.4	-	38.2	40.8	35.7	61.8	64.2	59.0
7/5/2016	4:32:00 AM	35.6	40.0	28.4	46.6		48.7	45.0	45.8		48.5	-	51.2	53.7	-	38.0	41.9	35.6	60.9	64.0	58.8
7/5/2016	4:33:00 AM	32.0	39.9	30.1	45.9		48.4	43.6	47.4		49.8	-	51.6	53.7	-	37.9	46.3	35.7	61.8	64.8	59.6
7/5/2016	4:34:00 AM	32.8	51.4	28.9	46.6		49.4	44.9	46.7		48.1	-	51.4	54.5	-	38.9	42.0	35.8	61.1	62.7	59.2
7/5/2016	4:35:00 AM	31.8	36.4	29.5	45.5		50.2	43.9	45.9		48.2	-	52.2	55.6	-	38.5	42.6	36.3	61.6	64.0	59.2
7/5/2016	4:36:00 AM	34.0	42.7	30.4	46.5		49.7	44.4	47.2		50.6	-	52.0	55.6	-	37.4	41.0	35.4	61.2	63.7	59.0
7/5/2016	4:37:00 AM	35.8	42.8	32.1	46.2		48.1	43.9	47.5		50.0	-	51.6	54.9	-	37.2	40.1	35.5	61.2	63.7	58.6
7/5/2016	4:38:00 AM	34.5	46.9	30.3	45.3		50.0	43.4	46.3		50.1	-	52.2	55.5	-	37.1	40.4	35.5	61.0	62.7	59.3
7/5/2016	4:39:00 AM	35.4	39.7	30.6	46.7		50.1	44.8	44.8		47.4	-	52.1	55.6	-	37.9	41.5	35.5	61.3	63.4	59.3
7/5/2016	4:40:00 AM	46.4	58.3	28.9	47.2		49.1	45.1	45.2		49.4	-	52.7	56.0	-	38.2	41.2	35.4	62.1	65.8	59.8
7/5/2016	4:41:00 AM	39.7	50.0	30.1	45.9		49.4	43.1	46.0		48.1	-	52.9	55.8	-	37.6	41.5	35.4	62.4	65.2	60.6
7/5/2016	4:42:00 AM	46.5	56.8	30.1	46.2		49.4	43.2	45.0		48.1	-	52.6	58.0	-	37.1	48.3	35.4	61.3	63.4	59.5
7/5/2016	4:43:00 AM	53.3	54.6	52.4	47.5		51.5	45.3	45.3		50.2	-	52.0	54.3	-	36.4	39.8	34.0	60.1	62.5	57.8
7/5/2016	4:44:00 AM	53.7	55.5	52.7	46.1		51.5	43.7	44.4		47.6	-	52.1	54.4	-	37.7	42.7	35.6	61.8	64.9	59.3
7/5/2016	4:45:00 AM	55.1	58.7	53.5	45.3		49.2	43.1	45.4		49.7	-	51.6	55.2	-	37.6	39.8	35.8	62.1	64.4	59.6
7/5/2016	4:46:00 AM	54.3	56.0	53.0	45.9		48.8	43.3	44.1		47.3	-	51.3	53.8	-	38.6	46.5	35.8	61.2	63.6	59.2
7/5/2016	4:47:00 AM	53.9	55.2	52.6	46.7		49.2	44.8	45.4		48.3	-	51.8	54.9	-	37.8	39.7	36.2	61.8	64.7	59.1
7/5/2016	4:48:00 AM	53.6	54.7	52.3	45.7		48.8	43.9	45.2		48.3	-	51.5	54.7	-	36.7	41.8	35.0	61.5	64.1	58.7
7/5/2016	4:49:00 AM	53.2	57.1	51.9	47.3		50.5	44.7	46.1		50.1	-	51.9	54.5	-	37.0	39.1	35.4	61.9	65.8	59.0
7/5/2016	4:50:00 AM	53.4	66.0	51.3	48.1		49.9	45.9	46.7		50.2	-	51.8	54.4	-	37.5	41.5	35.8	61.7	63.8	59.6
7/5/2016	4:51:00 AM	52.1	59.5	51.2	48.0		50.8	45.6	46.1		49.9	-	52.2	54.8	-	38.6	42.1	36.5	61.0	63.2	59.2
7/5/2016	4:52:00 AM	52.0	52.9	51.3

7/5/2016	5:09:00 AM	51.7	52.6	51.1	46.4		48.9	43.6	46.1		50.2	-	49.6	54.5	-	37.4	40.7	35.4	61.3	64.2	59.2
7/5/2016	5:10:00 AM	51.8	52.9	51.0	46.7		49.3	44.8	47.9		51.0	-	50.5	55.3	-	37.4	40.4	35.4	61.1	63.9	57.9
7/5/2016	5:11:00 AM	52.5	59.5	51.1	46.7		49.7	44.8	47.7		50.9	-	51.3	55.4	-	38.6	46.8	35.6	61.3	63.4	59.1
7/5/2016	5:12:00 AM	52.0	62.6	50.9	47.8		49.9	45.9	47.4		50.3	-	51.5	58.2	-	37.7	40.2	35.7	61.1	64.0	58.7
7/5/2016	5:13:00 AM	52.1	63.6	50.9	47.7		49.7	45.2	48.1		51.1	-	50.9	57.2	-	38.6	45.0	36.0	61.3	63.1	59.6
7/5/2016	5:14:00 AM	52.8	62.2	51.1	47.4		49.6	45.5	47.1		49.8	-	50.8	55.4	-	37.5	41.4	35.3	61.7	63.8	59.9
7/5/2016	5:15:00 AM	53.9	65.3	51.4	47.9		57.6	45.5	47.1		49.6	-	55.3	66.3	-	37.1	41.1	35.8	61.1	62.7	59.0
7/5/2016	5:16:00 AM	52.1	64.2	50.9	47.0		50.1	45.7	47.0		49.8	-	51.5	64.7	-	37.6	45.1	35.6	61.3	63.7	58.9
7/5/2016	5:17:00 AM	51.7	52.5	50.8	48.0		50.6	46.1	47.4		51.4	-	50.5	54.8	-	38.9	44.7	36.0	61.0	63.9	59.4
7/5/2016	5:18:00 AM	52.1	58.3	50.9	46.8		49.6	45.0	46.6		48.9	-	51.3	57.2	-	38.6	44.1	36.4	61.3	64.2	58.5
7/5/2016	5:19:00 AM	52.6	62.2	50.9	48.2		50.9	45.5	46.8		49.7	-	51.0	54.6	-	38.1	42.1	36.3	60.9	63.8	59.2
7/5/2016	5:20:00 AM	51.8	56.8	51.0	47.6		50.2	45.7	47.5		49.9	-	50.8	55.0	-	38.3	41.1	36.4	61.8	63.7	59.6
7/5/2016	5:21:00 AM	51.7	52.5	50.9	46.6		49.2	44.0	48.1		50.4	-	50.5	55.1	-	38.4	44.9	36.9	62.0	64.2	60.0
7/5/2016	5:22:00 AM	52.4	62.1	50.9	44.7		46.5	43.4	46.8		49.9	-	49.4	53.4	-	38.7	47.0	36.2	61.3	63.8	58.7
7/5/2016	5:23:00 AM	52.0	57.1	51.1	47.6		51.3	44.0	46.9		49.3	-	51.1	55.5	-	39.1	48.2	36.6	61.3	64.2	59.8
7/5/2016	5:24:00 AM	51.7	53.7	50.8	47.4		50.0	45.2	46.7		48.7	-	50.9	55.8	-	39.5	55.4	36.0	61.9	65.3	59.8
7/5/2016	5:25:00 AM	53.2	58.5	51.1	46.5		49.2	44.7	47.2		50.8	-	51.3	60.9	-	38.8	42.3	37.1	61.7	64.1	59.2
7/5/2016	5:26:00 AM	51.8	52.7	51.0	47.0		50.8	43.8	46.5		49.9	-	51.2	57.3	-	44.6	67.3	36.9	61.9	63.6	60.0
7/5/2016	5:27:00 AM	51.8	52.6	51.0	46.4		49.2	43.9	46.5		51.1	-	52.0	56.2	-	40.0	55.8	36.8	61.7	63.7	59.9
7/5/2016	5:28:00 AM	51.9	53.7	51.1	47.2		52.9	44.2	47.0		49.9	-	51.6	55.1	-	38.8	48.2	37.1	61.5	63.7	59.5
7/5/2016	5:29:00 AM	51.7	52.8	50.9	45.9		53.7	43.3	48.4		54.7	-	51.7	55.8	-	39.7	48.9	38.0	62.3	64.5	59.6
7/5/2016	5:30:00 AM	51.9	56.0	51.0	46.9		50.0	44.1	47.2		50.3	-	51.6	56.2	-	39.5	44.0	37.8	61.3	63.2	59.0
7/5/2016	5:31:00 AM	52.1	54.7	51.3	46.4		49.4	44.3	46.3		48.5	-	54.3	64.5	-	39.6	42.3	37.8	62.1	64.7	59.6
7/5/2016	5:32:00 AM	53.3	61.8	51.2	46.6		48.8	44.8	47.2		49.9	-	53.6	61.1	-	39.7	52.7	37.4	61.5	64.2	59.4
7/5/2016	5:33:00 AM	51.9	52.9	51.2	47.1		49.9	45.3	47.5		50.2	-	51.8	55.2	-	41.8	46.6	37.5	62.3	64.6	59.7
7/5/2016	5:34:00 AM	52.0	52.8	51.1	46.0		51.0	44.3	48.3		51.1	-	53.3	56.9	-	41.3	46.6	38.4	61.3	64.2	59.2
7/5/2016	5:35:00 AM	52.1	53.1	51.2	47.4		50.6	45.3	47.0		51.1	-	53.3	56.5	-	41.4	46.6	38.9	60.9	64.1	58.9
7/5/2016	5:36:00 AM	52.0	52.7	51.2	46.8		55.0	44.6	47.7		53.6	-	53.2	56.9	-	39.8	42.0	38.2	61.5	63.7	58.2
7/5/2016	5:37:00 AM	52.5	57.7	51.2	47.1		51.7	44.8	47.5		50.0	-	53.2	56.4	-	40.7	48.7	38.2	61.1	63.7	58.8
7/5/2016	5:38:00 AM	52.3	56.2	51.0	48.8		56.6	46.2	47.4		52.6	-	54.1	58.5	-	44.9	63.3	38.4	61.8	63.7	60.0
7/5/2016	5:39:00 AM	52.1	55.2	51.1	47.9		49.9	45.6	52.3		61.4	-	54.0	59.6	-	40.5	46.2	38.4	61.4	63.4	59.5
7/5/2016	5:40:00 AM	51.6	52.5	50.9	46.8		49.6	44.9	47.7		50.9	-	54.4	61.5	-	42.6	55.6	39.1	62.0	63.9	59.9
7/5/2016	5:41:00 AM	51.7	52.5	50.7	47.3		49.7	44.3	47.8		50.9	-	54.1	58.1	-	41.4	50.1	39.1	61.8	63.5	60.0
7/5/2016	5:42:00 AM	52.0	59.1	50.9	46.9		49.1	45.3	49.2		68.0	-	53.2	57.7	-	40.2	43.7	38.2	61.4	63.5	59.5
7/5/2016	5:43:00 AM	51.6	52.5	50.6	47.9		53.7	46.0	55.6		66.9	-	53.6	57.0	-	43.0	59.1	37.8	62.8	66.1	60.2
7/5/2016	5:44:00 AM	51.6	52.5	50.9	47.5		53.7	45.9	49.4		56.6	-	57.7	76.4	-	43.7	59.0	38.1	61.6	63.6	59.2
7/5/2016	5:45:00 AM	51.7	55.3	50.9	47.0		49.4	45.3	49.7		56.7	-	52.4	56.9	-	40.8	55.7	37.8	61.6	63.9	59.9
7/5/2016	5:46:00 AM	52.1	53.2	51.1	46.4		49.0	44.7	49.3		60.0	-	53.0	58.5	-	40.6	46.1	38.7	61.8	65.5	60.0
7/5/2016	5:47:00 AM	51.9	53.9	50.8	48.1		59.2	44.4	48.6		52.2	-	53.3	57.1	-	41.7	45.7	39.0	61.9	64.1	60.3
7/5/2016	5:48:00 AM	51.6	52.4	50.9	48.5		63.2	44.9	48.8		54.3	-	53.3	56.6	-	41.6	49.4	39.0	62.7	65.6	60.4
7/5/2016	5:49:00 AM	51.6	52.8	50.8	47.4		56.7	44.9	48.6		52.9	-	52.4	56.2	-	41.5	52.1	39.3	61.9	64.2	60.1
7/5/2016	5:50:00 AM	51.8	54.6	51.0	47.3		49.2	45.1	51.7		58.6	-	53.0	56.8	-	41.0	44.5	39.0	61.7	64.0	59.7
7/5/2016	5:51:00 AM	51.7	52.8	50.8	47.7		53.7	45.6	52.6		61.5	-	53.4	56.3	-	40.2	51.7	38.2	62.1	64.7	60.3
7/5/2016	5:52:00 AM	51.6	52.6	50.9	48.9		52.4	46.0	50.0		54.3	-	52.4	56.6	-	41.8	60.0	38.3	61.6	64.1	59.6
7/5/2016	5:53:00 AM	51.8	52.7	51.0	49.2		56.6	46.0	51.2		66.8	-	54.0	58.1	-	42.5	60.3	38.1	62.4	66.5	59.6
7/5/2016	5:54:00 AM	51.9	53.2	51.1	47.7		49.8	46.0	49.5		54.0	-	53.5	59.5	-	39.5	44.2	37.7	62.0	64.4	60.0
7/5/2016	5:55:00 AM	52.1	54.9	51.3	47.2		52.2	45.9	48.6		54.0	-	55.1	62.0	-	40.3	45.4	37.8	62.1	64.7	60.3
7/5/2016	5:56:00 AM	52.0	53.5	51.2	46.7		52.8	44.4	48.8		52.3	-	54.3	59.5	-	39.9	50.6	37.8	60.6	63.7	58.6
7/5/2016	5:57:00 AM	52.1	53.2	51.3	47.1		50.0	45.3	47.6		50.2	-	53.6	58.3	-	40.5	45.8	38.9	61.8	64.3	59.2
7/5/2016	5:58:00 AM	52.0	53.4	51.2	46.5		48.5	44.4	48.9		58.0	-	55.3	63.1	-	40.8	47.5	38.6	60.8	62.7	58.2
7/5/2016	5:59:00 AM	52.0	52.8	51.2	48.0		50.7	45.2	47.8		53.3	-	56.2	63.2	-	39.8	51.2	38.0	61.1	64.0	59.1
7/5/2016	6:00:00 AM	52.2	55.5	51.2	47.7	58.8	49.7	45.8	48.5	52.1	56.0	-	56.0	62.4	-	40.1	51.8	37.7	62.3	64.5	60.1
7/5/2016	6:01:00 AM	51.9	55.0	51.0	47.2		49.7	45.4	48.3		54.5	-	55.4	65.7	-	39.9	46.8	38.1	63.4	66.4	61.3
7/5/2016	6:02:00 AM	51.6	57.4	50.7	47.7		50.2	46.0	48.2		51.6	-	54.2	62.5	-	43.1	53.1	38.2	62.7	65.7	61.1
7/5/2016	6:03:00 AM	51.6	52.6	50.9	47.0		49.8	44.8	48.8		53.5	-	53.3	63.3	-	39.9	45.9	38.2	61.9	64.4	60.1
7/5/2016	6:04:00 AM	51.6	52.5	50.8	46.2		49.0	44.8	49.8		59.2	-	53.0	58.1	-	39.7	46.9	37.9	61.9	64.2	60.3
7/5/2016	6:05:00 AM	51.8	52.8	51.0	46.5		52.2	44.5	49.1		58.0	-	54.1	58.6	-	39.6	43.1	38.0	61.6	64.5	59.3
7/5/2016	6:06:00 AM	51.7	52.6	51.0	46.1		50.7	44.1	47.7		53.2	-	54.8	60.5	-	39.7	43.0	38.1	61.6	63.7	58.9
7/5/2016	6:07:00 AM	51.9	53.0	51.0	49.2		53.1	45.9	49.3		58.1	-	54.8	60.6	-	40.1	48.4	38.0	62.4	66.0	60.1
7/5/2016	6:08:00 AM	51.9	53.3	51.2	48.4		50.2	46.4	49.2		56.0	-	54.3	58.1	-	39.1	43.3	37.1	62.4	65.3	60.1
7/5/2016	6:09:00 AM	53.6	67.3	50.9	48.8		51.7	46.2	50.5		60.7	-	52.6	56.4	-	40.4	45.4	37.4	62.1	64.8	59.4
7/5/2016	6:10:00 AM	54.6	62.4	51.7	55.9		64.0	46.3	49.9		59.6	-	52.7	59.5	-	40.4	50.0	38.3	61.9	64.6	60.2
7/5/2016	6:11:00 AM	57.0	59.0	55.2	48.6		55.0	45.7	50.4		61.5	-	52.1	55.9	-	40.7	44.5	38.3	62.8	64.8	61.1
7/5/2016	6:12:00 AM	56.1	58.7	51.9	47.9		52.0	45.9	52.2		62.8	-	52.6	58.1	-	41.3	44.0	39.4	62.1	64.9	60.4
7/5/2016	6:13:00 AM	54.0	65.7	51.1	48.5		51.1	46.6	54.2		68.1	-	53.2	55.9	-	40.6	56.9	38.1	61.7	63.6	60.2
7/5/2016	6:14:00 AM	52.4	59.1	51.3	49.3		53.0	47.3	50.6		61.9	-	53.1	56.0	-	40.2	46.0	38.2	62.1	63.9	59.9
7/5/2016	6:15:00 AM	52.9	60.0	51.5	56.9		65.4	47.7	50.1		57.2	-	53.4	56.6	-	40.5	57.6	37.8	62.1	63.7	60.1
7/5/2016	6:16:00 AM	51.9	53.1	51.1	49.6		51.9	47.7	51.2		57.9	-	52.8	56.0	-	39.7	42.9	37.7	62.6	65.1	60.8
7/5/2016	6:17:00 AM	52.1	53.0	51.1	49.1		51.9	47.0	49.1		58.3	-	54.9	61.5	-	40.6	51.6	37.5	62.6	64.5	60.8
7/5/2016	6:18:00 AM	52.1	52.9	51.2	53.1		61.8	48.3	48.8		53.4	-	55.3	61.8	-	40.9	49.8	38.4	62.4	64.9	60.5
7/5/2016	6:19:00 AM	52.1	54.9	51.2	50.8		53.7	48.5	49.0		54.3	-	53.3	57.2	-	40.3	54.9	37.4	61.5	64.6	59.6
7/5/2016	6:20:00 AM	52.0	53.9	51.2	51.4		53.8	49.9	50.2		56.6	-	53.6	56.0	-	39.6	41.9	37.9	62.1	64.2	60.1
7/5/2016	6:21:00 AM	52.6	57.6	51.0	50.7		63.2	48.4	48.9		55.3	-	52.8	55.2	-	40.3	44.5	38.1	62.4	65.1	60.3
7/5/2016	6:22:00 AM	52.2	55.9	51.1	50.1		52.0	48.7	50.4		56.4	-	52.7	57.0	-	40.4	46.3	38.3	62.1	65.1	60.3
7/5/2016	6:23:00 AM	51.1	55.6	40.5	50.9		53.5	49.0	58.3		77.4	-	54.3	58.7	-	42.0	49.2	38.1	62.6	64.4	61.2
7/5/2016	6:24:00 AM	41.0	50.2	36.1	52.5		59.0	50.0	62.4		79.8	-	55.9	62.3	-	39.9	45.3	37.9	63.2	66.9	60.7
7/5/2016	6:25:00 AM	38.8	47.1	33.1	53.2		58.0	50.6	50.3		60.2	-	54.3	60.2	-	40.4	45.4	37.7	62.8	65.2	60.8
7/5/2016	6:26:00 AM	41.5	50.5	35.8	52.6		56.5	50.8	52.2		70.9	-	54.2	58.4	-	39.8	43.3	38.0	62.0	64.4	60.2
7/5/2016	6:27:00 AM	50.2	57.3	38.2	52.2		56.4	50.3	58.2		76.1	-	55.0	58.5	-	40.1	42.9	38.5	62.6	66.3	59.1
7/5/2016	6:28:00 AM	53.2	57.8	51.7	53.8		56.6	50.9	54.9		65.0	-	55.0	57.1	-	40.3	45.6	38.3	61.5	64.0	59.4
7/5/2016	6:29:00 AM	52.6	56.3	51.0	55.0		61.4	52.1	50.4		55.8	-	55.3	57.2	-	42.0	46.2	39.2	62.9	65.6	60.3
7/5/2016	6:30:00 AM	51.9	52.8	50.9	58.2		66.6	52.2	51.2		64.2	-	54.4	56.6	-	41.5	49.2	39.2	61.4	63.9	59.2
7/5/2016	6:31:00 AM	58.6	80.6	51.2	54.3		60.8	49.9	51.5		62.5	-	56.0	59.9	-	41.7	48.4	39.4	61.5	64.7	59.2
7/5/2016	6:32:00 AM	52.5	56.2	51.3	59.2		68.8	51.5	49.5		57.2	-	57.3	66.9	-	41.8	48.9	38.5	62.0	64.0	59.3
7/5/2016	6:33:00 AM	52.4	55.9	51.0	64.3		73.1	51.9	50.5		54.9	-	56.3	61.8	-	41.6	53.3	39.0	63.0	65.6	61.5
7/5/2016	6:34:00 AM	52.9	58.1	51.3	59.2		67.4	53.2	50.8		53.9	-	55.0	59.4	-	41.9	58.3	38.4	62.6	64.8	60.9
7/5/2016	6:35:00 AM	52.9	56.0	51.5	55.4		61.0	52.2	51.7		59.9	-	55.7	66.1	-	41.6	53.8	38.9	62.7	64.6	61.0
7/5/2016	6:36:00 AM	52.2	56.0	51.2	63.6		71.5	54.3	51.0		66.0	-	55.3	64.7	-	41.9	45.9	39.5	62.1	63.7	60.6
7/5/2016	6:37:00 AM	52.5	57.5	50.7	62.0		73.2	52.3	50.7		60.0	-	55.8	68.8	-	40.5	45.2	38.6	62.5	65.2	60.5
7/5/2016	6:38:00 AM	52.6	55.5	51.3	65.8		74.4	53.9	50.2		64.2	-	55.3	67.7	-	41.3	51.0	38.9	64.9	70.1	61.1
7/5/2016	6:39:00 AM	52.7	58.0	51.2	60.3		68.8	51.8	54.7		71.1	-	54.7	58.1	-	42.3	46.4	39.5	63.1	68.1	60.2
7/5/2016	6:40:00 AM	52.7	55.1	51.3	56.6		64.8	52.5	50.3		64.8	-	55.5	63.8	-	43.4	60.5	39.1	62.4	64.8	59.8
7/5/2016	6:41:00 AM	52.6	58.5	51.4	58.7		65.4	52.9	49.4		58.0	-	59.4	74.4	-	42.6	49.2	39.2	63.0	65.1	61.1
7/5/2016	6:42:00 AM	52.3	54.0	51.4	62.4		70.5	52.1	53.0		70.2	-	52.5	56.3	-	42.3	47.5	39.3	64.6	70.1	60.8
7/5/2016	6:43:00 AM	50.1	56.3	41.8	60.5		69.3	51.5	50.8		64.8	-	54.6	64.3	-	41.8	46.1	38.5	62.5	65.3	59.9
7/5/2016	6:44:00 AM	47.1	53.0	41.2	60.8		69.1	50.4	49.4		56.5	-	53.3	59.0	-	41.4	46.7	39.2	63.0	65.8	60.2
7/5/2016	6:45:00 AM	47.8	52.0	41.7	63.5		72.2	50.0	53.9		70.4	-	54.1	57.8	-	47.4	57.4	40.0	63.1	65.2	60.7
7/5/2016	6:46:00 AM	48.3	54.2	42.3	61.7		69.2	50.8	51.5		59.7	-	52.5	56.8	-	42.4	56.3	38.9	62.5	65.0	59.2
7/5/2016	6:47:00 AM	52.1	57.4	41.7	56.2		65.0	49.0	53.0		61.6	-	52.9	55.6	-	42.1	57.0	39.6	62.8	64.9	61.1
7/5/2016	6:48:00 AM	53.9	64.1	51.7	56.1		64.8	48.8	51.4		55.7	-	53.4	67.3	-	42.0	54.1	39.4	62.1	63.9	59.9
7/5/2016	6:49:00 AM	52.6	56.4	51.2	63.5		71.4	48.5	49.7		54.8	-	51.4	54.7	-	43.2	48.1	40.2	63.7	68.4	61.0
7/5/2016	6:50:00 AM	53.9	66.0	51.7	52.9		61.0	49.9	48.9		53.3	-	53.0	56.7	-	42.1	48.4	39.2	63.6	66.2	61.2
7/5/2016	6:51:00 AM	53.3	61.4	51.2	64.8		74.9	49.9	50.0		54.2	-	54.3	60.1	-	49.0	68.3	38.7	63.1	65.9	60.1
7/5/2016	6:52:00 AM	52.0	61.9	51.0	61.4		69.6	52.2	48.5		51.7	-	54.6	58.4	-	40.3	43.3	38.4	63.2	65.5	61.1
7/5/2016	6:53:00 AM	53.6	59.2	51.0	62.8		72.1	49.8	49.2		54.6	-	54.7	58.3	-	41.0	53.0	38.9	63.1	66.3	60.8
7/5/2016	6:54:00 AM	53.5	60.6	51.6	57.6		67.8	49.7	49.6		63.5	-	54.4	57.7	-	46.4	69.0	39.7	63.5	70.9	60.7
7/5/2016	6:55:00 AM	53.3	56.1	51.6	58.9		68.2	50.8	49.1		54.9	-	55.2	66.9	-	65.1	81.4	39.9	63.7	65.8	61.9
7/5/2016	6:56:00 AM	53.9	58.0	52.1	61.3		69.5	51.7	49.7		54.9	-	55.9	59.4	-	60.0	79.3	39.6	63.5	68.6	61.1
7/5/2016	6:57:00 AM	53.8	56.6	52.5	65.5		76.6	52.3	49.3		51.5	-	56.5	61.8	-	44.3	56.0	40.6	65.3	70.5	61.0
7/5/2016	6:58:00 AM	54.4	61.5	52.8	60.5		69.4	53.0	48.8		51.8	-	55.5	57.6	-	43.2	51.1	39.2	64.0	72.5	60.6
7/5/2016	6:59:00 AM	54.4	59.3	52.6	59.2		68.3	51.8	48.2		53.9	-	56.3	61.3	-	43.4	48.1	40.8	63.4	65.8	61.4
7/5/2016	7:00:00 AM	53.2	58.7	49.7	61.7	59.5	69.0	52.8	50.3	50.4	60.5	-	57.5	63.2	-	50.1	69.0	40.5	63.3	66.2	61.4
7/5/2016	7:01:00 AM	51.7	59.8	48.0	55.8		64.8	51.2	48.3		50.9	-	55.7	59.2	-	41.3	45.3	38.7	63.3	66.0	60.5
7/5/2016	7:02:00 AM	50.7	55.8	46.7	62.7		71.7	54.4	48.8		52.6	-	56.1	59.1	-	42.4	46.9	39.4	62.9	65.4	60.4
7/5/2016	7:03:00 AM	50.1	55.2	47.2	54.7		59.0	51.2	48.6		50.8	-	56.0	59.7	-	42.2	48.6	39.9	63.9	66.7	61.6
7/5/2016	7:04:00 AM	50.9	58.5	47.0	62.0		70.1	51.3	48.7		52.1	-	55.8	57.9	-	41.4	47.3	39.5	62.9	65.3	60.3
7/5/2016	7:05:00 AM	54.6	58.9	53.1	52.8		56.5	50.3	47.7		51.9	-	56.0	59.8	-	42.0	45.1	39.4	62.8	65.1	61.2
7/5/2016	7:06:00 AM	54.7	58.9	53.0	64.5		73.6	50.6	48.0		50.9	-	55.0	57.9	-	42.4	47.7	39.1	63.7	67.5	61.1
7/5/2016	7:07:00 AM	53.8	55.0	52.9	56.4		65.7	51.4	49.8		61.2	-	58.5	69.3	-	41.7	47.9	39.3	63.6	66.8	61.0
7/5/2016	7:08:00 AM	55.6	61.6	53.3	54.8		63.7	47.7	51.1		63.8	-	59.0	67.5	-	42.4	54.4	39.2	63.3	66.1	61.1
7/5/2016	7:09:00 AM	54.2	55.4	53.1	66.6		75.4	51.1	49.0		54.0	-	55.8	59.1	-	42.9	55.7	39.4	63.3	65.2	61.1
7/5/2016	7:10:00 AM	54.3	56.6	53.1	51.2		57.0	48.6	50.6		59.2	-	57.3	61.3	-	42.4	50.7	39.6	63.1	65.2	60.7
7/5/2016	7:11:00 AM	54.6	58.3	52.8	61.2		69.3	48.7	49.1		60.0	-	56.4	59.7	-	41.3	48.4	39.0	63.2	66.1	61.5
7/5/2016	7:12:00 AM	55.1	75.9	51.3	51.9		60.6	49.0	47.6		53.5	-	56.3	61.3	-	43.2	49.9	39.2	62.9	65.0	60.9
7/5/2016	7:13:00 AM	59.1	78.9	51.5	63.1		72.7	48.7	48.6		52.3	-	62.0	75.0	-	41.9	56.1	39.3	63.9	66.5	61.6
7/5/2016	7:14:00 AM	52.8	56.2	51.3	57.3		63.6	50.5	47.3		54.8	-	57.3	69.9	-	42.8	59.0	39.1	65.0	71.4	62.3
7/5/2016	7:15:00 AM	53.2	57.4	51.7	55.3		66.5	48.9	47.6		49.5	-	56.6	60.1	-	43.8	57.1	39.3	63.8	67.7	62.0
7/5/2016	7:16:00 AM	49.4	56.0	41.6	60.7		70.4	49.5	49.1		56.4	-	57.4	60.1	-	40.8	49.3	39.0	62.7	64.7	59.6
7/5/2016	7:17:00 AM	48.2	55.2	41.8	64.7		73.7	48.2	51.2		58.3	-	58.1	64.7	-	52.3	74.4	39.6	61.7	64.8	59.9
7/5/2016	7:18:00 AM	48.1	56.5	43.6	56.2

7/5/2016	7:35:00 AM	50.2	57.2	45.4	63.4		71.4	49.6	49.9		52.9	-	56.6	60.9	-	46.0	63.7	38.6	66.7	76.3	62.2
7/5/2016	7:36:00 AM	53.9	56.5	52.2	58.4		68.6	49.2	48.2		50.8	-	56.4	59.9	-	40.7	50.4	38.5	66.7	76.8	62.2
7/5/2016	7:37:00 AM	53.7	55.8	52.5	57.5		70.4	47.9	50.1		59.9	-	56.2	59.3	-	43.1	63.1	38.5	63.4	66.5	61.4
7/5/2016	7:38:00 AM	54.0	58.8	52.5	58.7		72.9	48.0	51.2		60.9	-	55.8	58.6	-	57.6	76.8	39.0	64.1	67.3	61.3
7/5/2016	7:39:00 AM	53.3	56.4	52.3	66.8		77.0	53.9	50.7		59.3	-	56.8	58.6	-	55.2	73.3	39.2	65.8	78.4	62.0
7/5/2016	7:40:00 AM	55.1	58.9	52.3	52.0		55.8	48.5	49.6		52.9	-	57.7	67.6	-	55.3	72.4	39.1	64.9	68.1	61.7
7/5/2016	7:41:00 AM	53.9	56.7	52.2	62.1		71.0	48.7	48.7		52.4	-	57.3	60.5	-	41.9	46.2	39.4	65.7	74.3	62.6
7/5/2016	7:42:00 AM	54.0	57.2	52.6	51.2		58.7	47.3	50.6		53.2	-	57.4	63.2	-	42.7	46.3	39.9	65.4	68.7	63.8
7/5/2016	7:43:00 AM	53.6	55.7	52.2	54.1		63.8	49.1	50.9		54.3	-	58.1	61.9	-	42.7	48.9	40.4	65.1	68.3	62.5
7/5/2016	7:44:00 AM	53.0	55.6	51.8	50.2		52.1	48.3	52.1		55.8	-	58.9	71.9	-	45.2	66.7	39.9	66.1	69.2	63.1
7/5/2016	7:45:00 AM	52.6	54.3	51.6	52.3		61.0	48.1	52.1		56.0	-	60.5	71.9	-	61.1	83.0	40.1	66.1	68.9	63.9
7/5/2016	7:46:00 AM	50.3	57.0	43.8	50.4		54.2	47.9	55.8		70.6	-	57.6	60.5	-	42.0	46.7	39.9	65.7	68.5	62.4
7/5/2016	7:47:00 AM	45.9	49.5	43.8	50.8		53.1	48.4	52.2		55.6	-	57.9	60.4	-	42.9	55.3	40.4	65.6	67.7	63.4
7/5/2016	7:48:00 AM	46.8	53.3	43.5	52.2		65.3	47.9	50.2		54.0	-	58.8	68.8	-	42.9	52.5	40.5	66.0	68.6	64.0
7/5/2016	7:49:00 AM	46.3	50.5	43.9	60.0		67.9	50.3	49.9		54.0	-	57.5	60.5	-	41.9	52.0	40.1	66.1	69.1	63.4
7/5/2016	7:50:00 AM	51.4	57.7	44.6	52.1		56.7	49.1	50.1		52.1	-	57.5	60.9	-	41.6	44.9	39.6	65.8	68.2	63.2
7/5/2016	7:51:00 AM	54.0	57.1	52.2	64.2		72.8	48.1	50.2		52.9	-	61.1	70.4	-	41.4	45.2	39.8	65.9	68.9	63.4
7/5/2016	7:52:00 AM	55.0	68.6	51.9	57.2		67.0	50.6	50.4		52.4	-	57.4	66.9	-	41.4	46.7	39.7	65.1	68.1	62.9
7/5/2016	7:53:00 AM	69.1	85.0	52.4	55.3		67.6	48.9	50.6		53.9	-	57.9	66.3	-	42.1	47.6	39.7	65.5	67.5	63.5
7/5/2016	7:54:00 AM	52.9	54.3	51.9	63.3		73.8	51.9	52.2		56.2	-	59.7	63.8	-	41.7	49.7	39.8	66.3	69.5	62.7
7/5/2016	7:55:00 AM	53.0	56.7	51.9	62.4		73.7	49.2	55.9		61.2	-	59.3	64.6	-	54.9	66.8	40.4	67.5	70.4	62.9
7/5/2016	7:56:00 AM	53.1	55.7	52.1	54.6		60.4	49.9	50.9		53.1	-	60.9	70.4	-	54.9	68.2	40.7	68.0	70.5	66.3
7/5/2016	7:57:00 AM	54.4	59.8	52.5	51.5		59.8	48.8	52.5		59.0	-	59.2	68.8	-	42.8	47.1	40.6	67.3	70.1	63.2
7/5/2016	7:58:00 AM	53.4	56.6	52.0	52.0		56.6	49.0	51.6		56.7	-	60.3	65.5	-	42.3	45.2	40.7	67.2	74.0	63.9
7/5/2016	7:59:00 AM	53.1	55.5	52.0	53.7		61.3	47.9	51.6		54.5	-	59.1	66.5	-	41.7	46.9	40.2	68.5	70.7	66.0
7/5/2016	8:00:00 AM	53.5	65.1	51.9	64.5	58.1	74.9	54.3	52.0	51.6	56.9	-	59.5	63.0	-	42.4	48.9	40.7	68.3	70.6	66.4
7/5/2016	8:01:00 AM	53.3	60.1	51.7	55.5		66.8	49.8	52.1		56.1	-	59.8	64.1	-	43.4	52.5	39.9	68.2	70.5	66.2
7/5/2016	8:02:00 AM	49.3	57.8	44.2	53.2		57.2	50.9	50.6		53.7	-	60.1	62.8	-	41.1	44.7	39.7	68.2	70.1	66.2
7/5/2016	8:03:00 AM	46.6	60.6	42.9	53.9		60.0	49.6	51.5		58.0	-	60.9	63.1	-	41.4	43.3	39.4	67.2	70.4	63.7
7/5/2016	8:04:00 AM	47.5	53.4	42.8	60.4		70.6	51.2	52.1		59.7	-	61.3	64.3	-	41.7	52.1	39.6	67.7	71.4	65.5
7/5/2016	8:05:00 AM	51.8	58.7	44.9	55.4		62.7	51.4	53.6		58.4	-	62.8	85.1	-	41.5	46.2	39.9	67.4	69.6	65.8
7/5/2016	8:06:00 AM	58.7	66.1	48.3	60.7		68.5	50.6	52.3		55.9	-	59.5	62.1	-	43.6	51.5	39.8	67.1	69.7	63.9
7/5/2016	8:07:00 AM	58.3	68.6	52.9	53.7		57.2	50.5	48.8		50.9	-	59.4	62.3	-	43.1	59.6	39.4	67.3	69.5	65.7
7/5/2016	8:08:00 AM	54.9	59.0	52.1	52.4		54.4	50.4	49.1		52.7	-	60.1	63.3	-	41.7	45.7	40.2	67.1	68.9	65.8
7/5/2016	8:09:00 AM	52.8	54.0	51.9	53.5		60.8	50.0	51.0		57.2	-	59.3	61.5	-	42.4	47.3	40.4	67.3	68.9	65.7
7/5/2016	8:10:00 AM	53.0	55.2	51.8	59.0		68.3	50.4	52.3		56.8	-	61.1	64.9	-	43.0	47.8	39.5	67.6	70.4	65.8
7/5/2016	8:11:00 AM	52.9	54.6	51.9	52.6		56.9	49.7	49.2		51.9	-	59.4	64.1	-	41.6	49.9	39.6	67.2	69.3	63.9
7/5/2016	8:12:00 AM	52.9	58.3	51.7	53.2		58.1	49.8	51.7		59.1	-	59.7	63.3	-	42.5	46.0	40.2	66.8	70.4	63.4
7/5/2016	8:13:00 AM	53.3	57.6	51.7	61.8		71.7	50.3	50.2		52.9	-	60.7	67.3	-	42.2	44.9	40.7	65.3	68.6	63.4
7/5/2016	8:14:00 AM	53.0	57.4	51.9	62.2		71.4	51.7	50.6		55.1	-	62.4	71.9	-	42.2	44.3	39.9	65.5	70.4	63.5
7/5/2016	8:15:00 AM	53.6	56.7	52.1	64.1		75.8	51.4	51.8		54.5	-	59.4	62.4	-	42.3	44.7	40.2	65.4	68.1	63.4
7/5/2016	8:16:00 AM	53.8	58.3	52.1	57.3		65.5	49.9	49.6		52.7	-	59.5	61.7	-	42.3	45.6	39.9	65.7	68.1	63.4
7/5/2016	8:17:00 AM	52.8	59.1	47.8	51.0		52.7	49.5	49.1		53.7	-	60.5	64.0	-	41.5	47.1	39.8	66.1	68.8	63.5
7/5/2016	8:18:00 AM	46.0	52.3	43.9	51.6		56.0	49.7	50.3		56.5	-	60.4	64.8	-	41.8	46.4	39.9	65.6	68.6	63.5
7/5/2016	8:19:00 AM	46.0	50.3	43.7	51.3		54.3	49.3	50.8		57.4	-	59.5	62.3	-	43.0	56.1	40.5	65.7	67.7	63.3
7/5/2016	8:20:00 AM	50.8	64.6	44.8	51.9		54.4	50.0	49.7		54.9	-	60.0	63.7	-	42.5	49.3	40.5	65.3	69.2	63.1
7/5/2016	8:21:00 AM	51.9	57.3	45.4	52.3		54.9	49.8	48.5		50.9	-	60.1	66.3	-	43.0	47.1	39.8	65.9	69.8	63.5
7/5/2016	8:22:00 AM	55.4	60.3	52.4	51.7		54.9	49.8	50.6		54.6	-	59.6	66.7	-	42.0	53.5	39.7	65.3	68.6	62.9
7/5/2016	8:23:00 AM	54.5	61.1	52.1	51.2		54.3	49.1	49.2		52.0	-	60.8	68.3	-	42.1	46.2	40.5	65.5	69.4	63.1
7/5/2016	8:24:00 AM	53.4	57.9	52.0	51.4		53.2	49.1	48.8		55.8	-	59.6	64.2	-	41.6	47.0	40.1	66.8	70.8	63.2
7/5/2016	8:25:00 AM	53.4	59.9	52.0	54.3		62.0	50.3	51.9		57.9	-	59.8	61.8	-	41.5	47.7	39.5	67.3	70.2	65.3
7/5/2016	8:26:00 AM	52.8	55.5	51.7	52.1		55.1	50.1	51.2		56.2	-	59.7	61.8	-	41.5	43.3	39.6	68.2	72.0	65.6
7/5/2016	8:27:00 AM	52.7	54.8	51.7	55.2		63.2	49.7	49.0		61.3	-	60.7	72.9	-	41.7	44.3	40.1	67.9	69.7	66.6
7/5/2016	8:28:00 AM	52.7	54.3	51.8	52.3		55.9	50.4	50.5		59.0	-	58.8	60.6	-	42.0	49.8	40.2	68.2	85.9	65.2
7/5/2016	8:29:00 AM	58.9	71.5	51.8	50.9		54.4	49.2	51.6		56.3	-	58.6	62.2	-	42.3	46.6	40.7	67.7	69.8	65.3
7/5/2016	8:30:00 AM	55.2	62.8	51.7	50.7		52.7	49.2	52.0		57.3	-	59.1	62.1	-	41.9	44.2	39.9	67.8	69.7	66.2
7/5/2016	8:31:00 AM	52.7	54.5	51.7	57.7		67.5	49.6	50.4		57.5	-	59.3	63.2	-	42.3	45.1	40.5	68.6	71.4	62.5
7/5/2016	8:32:00 AM	52.4	55.1	51.5	60.7		67.2	50.8	52.1		59.1	-	59.9	65.9	-	42.9	52.0	40.6	69.0	74.7	63.0
7/5/2016	8:33:00 AM	45.6	52.3	42.2	62.4		66.1	59.2	51.9		57.0	-	59.5	62.7	-	42.6	44.7	40.6	68.7	71.8	65.0
7/5/2016	8:34:00 AM	46.2	51.6	43.2	60.9		64.8	56.2	51.4		54.3	-	57.6	61.0	-	43.6	47.0	41.5	68.2	71.2	66.0
7/5/2016	8:35:00 AM	44.3	56.0	41.4	64.4		78.2	53.6	51.3		56.9	-	59.0	61.7	-	42.7	45.3	41.1	68.1	69.7	66.4
7/5/2016	8:36:00 AM	46.5	55.9	42.3	63.7		70.2	59.2	49.7		54.5	-	59.1	62.4	-	42.7	48.7	41.0	66.6	69.3	62.1
7/5/2016	8:37:00 AM	54.0	61.3	43.1	61.3		66.3	55.9	50.4		55.6	-	60.3	66.0	-	42.3	44.9	40.7	66.6	70.3	62.1
7/5/2016	8:38:00 AM	54.4	62.7	52.7	56.1		61.6	52.9	53.1		59.7	-	59.0	65.3	-	42.5	50.4	40.4	66.4	72.0	62.7
7/5/2016	8:39:00 AM	52.9	54.2	51.8	54.9		57.7	52.5	50.2		54.2	-	59.3	61.4	-	43.1	46.6	40.5	69.8	78.8	64.3
7/5/2016	8:40:00 AM	54.1	59.4	52.4	54.2		56.7	51.9	50.1		56.6	-	59.4	62.7	-	43.2	45.8	41.2	65.8	69.9	62.6
7/5/2016	8:41:00 AM	53.5	59.1	51.5	58.6		63.1	52.1	50.4		55.5	-	58.1	61.3	-	44.3	52.9	41.5	65.9	69.4	62.6
7/5/2016	8:42:00 AM	53.2	56.2	51.6	58.5		67.5	53.7	48.1		52.7	-	59.2	64.4	-	43.4	48.6	41.1	66.7	70.0	64.2
7/5/2016	8:43:00 AM	52.9	57.9	51.7	54.6		59.8	51.4	50.3		54.2	-	59.7	68.9	-	43.1	45.6	41.3	66.6	70.6	63.7
7/5/2016	8:44:00 AM	53.5	58.8	52.3	60.9		69.1	51.8	50.5		57.0	-	59.3	62.7	-	43.1	48.7	41.1	64.9	69.4	62.3
7/5/2016	8:45:00 AM	56.2	68.9	52.1	51.6		55.0	49.0	51.2		56.7	-	59.2	62.1	-	43.3	46.6	41.4	65.7	71.3	63.6
7/5/2016	8:46:00 AM	55.8	67.6	52.3	55.1		66.3	48.5	52.7		61.2	-	59.2	63.3	-	43.4	50.2	41.4	65.5	70.6	62.3
7/5/2016	8:47:00 AM	70.1	79.5	52.8	55.4		65.5	49.6	54.3		68.5	-	59.2	65.6	-	43.1	46.7	41.6	65.1	69.7	62.0
7/5/2016	8:48:00 AM	49.2	63.4	42.9	56.5		66.1	51.7	50.9		62.8	-	59.0	62.2	-	43.7	46.9	41.9	65.2	68.2	62.2
7/5/2016	8:49:00 AM	48.6	56.0	43.4	54.9		64.1	50.4	51.6		67.2	-	60.8	69.6	-	44.2	47.3	42.4	66.2	68.4	63.8
7/5/2016	8:50:00 AM	49.4	55.8	45.5	57.7		65.0	50.4	50.8		58.3	-	59.1	62.2	-	44.2	47.6	42.2	65.5	68.7	62.3
7/5/2016	8:51:00 AM	49.4	57.6	45.6	53.8		61.9	50.0	52.2		59.0	-	59.1	61.9	-	63.8	75.3	44.4	66.6	68.9	64.2
7/5/2016	8:52:00 AM	54.1	61.6	45.9	52.9		55.6	49.7	54.2		60.1	-	59.0	61.4	-	50.3	60.8	41.9	65.6	68.4	62.9
7/5/2016	8:53:00 AM	53.9	57.2	52.4	53.9		57.4	50.7	53.7		59.1	-	59.0	62.1	-	43.5	45.8	41.8	65.2	71.0	61.6
7/5/2016	8:54:00 AM	54.6	58.3	53.0	52.3		56.9	49.9	54.2		59.4	-	58.4	61.4	-	44.0	50.9	42.0	65.1	67.6	61.3
7/5/2016	8:55:00 AM	53.7	58.3	51.8	51.3		55.4	48.6	54.0		60.8	-	58.5	61.8	-	52.8	61.4	42.4	65.7	70.5	61.2
7/5/2016	8:56:00 AM	53.1	54.7	51.8	53.5		60.5	49.6	52.1		64.2	-	59.3	62.9	-	48.0	55.2	43.2	65.6	75.0	60.9
7/5/2016	8:57:00 AM	53.8	64.9	52.1	58.5		68.9	49.2	54.2		58.4	-	60.1	71.4	-	43.9	46.4	42.1	66.0	70.5	62.1
7/5/2016	8:58:00 AM	53.7	56.2	52.5	58.7		68.1	51.7	54.9		61.3	-	59.0	64.5	-	44.0	52.8	42.1	65.6	70.0	61.7
7/5/2016	8:59:00 AM	54.1	59.6	52.3	62.9		72.7	53.3	54.4		62.1	-	59.4	66.6	-	44.4	47.8	43.0	65.8	69.6	62.7
7/5/2016	9:00:00 AM	54.3	60.0	51.9	63.4	55.8	72.6	53.9	54.3	54.6	60.8	-	58.6	60.5	-	44.6	54.4	42.6	65.0	69.5	60.6
7/5/2016	9:01:00 AM	54.1	57.1	52.2	53.9		61.1	48.8	55.5		59.9	-	59.4	69.2	-	44.8	52.6	42.8	65.3	68.9	62.0
7/5/2016	9:02:00 AM	54.4	60.4	52.4	57.1		64.9	50.9	55.5		60.6	-	58.2	62.4	-	44.8	49.8	42.8	65.4	69.7	61.7
7/5/2016	9:03:00 AM	54.2	57.2	52.4	52.1		56.0	50.3	54.5		61.0	-	57.2	58.9	-	45.7	57.4	42.8	64.7	76.8	61.5
7/5/2016	9:04:00 AM	54.0	60.9	52.5	52.9		58.7	49.2	52.7		57.5	-	59.4	65.0	-	46.1	49.4	42.8	66.4	75.0	62.5
7/5/2016	9:05:00 AM	53.7	56.2	48.5	53.3		60.3	49.9	53.4		60.4	-	59.7	62.3	-	46.7	55.8	44.2	65.7	69.1	61.3
7/5/2016	9:06:00 AM	50.5	57.1	46.8	51.1		54.0	49.2	54.1		60.4	-	62.4	73.4	-	46.2	50.7	43.8	65.2	69.1	62.0
7/5/2016	9:07:00 AM	51.0	62.0	48.1	51.3		59.1	49.3	56.5		60.3	-	60.1	63.2	-	45.3	48.1	43.5	65.3	68.5	63.2
7/5/2016	9:08:00 AM	51.6	69.9	47.1	56.7		64.1	50.4	55.3		60.2	-	60.2	65.0	-	45.9	49.2	43.5	65.6	68.1	62.9
7/5/2016	9:09:00 AM	59.1	70.4	46.6	60.3		71.1	51.6	54.7		62.2	-	60.4	64.2	-	46.6	50.2	43.8	66.3	70.1	62.8
7/5/2016	9:10:00 AM	61.0	71.6	54.0	55.4		62.0	50.0	51.0		55.9	-	59.8	64.0	-	45.9	49.6	43.4	65.7	70.5	61.4
7/5/2016	9:11:00 AM	54.2	58.3	52.3	51.4		53.2	49.5	53.7		61.3	-	59.9	62.0	-	46.5	52.5	44.2	66.2	71.1	61.8
7/5/2016	9:12:00 AM	58.2	69.7	52.6	51.8		56.3	49.2	55.3		63.2	-	59.6	62.7	-	46.2	50.4	43.8	66.3	70.3	62.7
7/5/2016	9:13:00 AM	56.9	74.9	53.1	52.9		61.5	49.7	54.8		59.6	-	60.0	63.8	-	47.4	52.3	43.7	66.1	73.0	62.4
7/5/2016	9:14:00 AM	53.8	58.2	49.0	54.1		62.4	49.6	53.6		60.9	-	59.6	62.9	-	47.3	56.6	44.0	65.9	69.3	61.9
7/5/2016	9:15:00 AM	51.5	58.1	48.6	55.6		62.0	49.8	57.5		67.2	-	60.0	66.4	-	48.1	52.1	44.2	67.6	73.9	63.4
7/5/2016	9:16:00 AM	51.7	58.3	48.6	55.0		60.4	51.0	53.3		61.4	-	59.7	67.0	-	47.8	54.4	44.4	66.3	70.2	62.5
7/5/2016	9:17:00 AM	50.3	57.1	47.9	52.9		59.9	49.8	53.0		58.5	-	58.9	61.4	-	48.0	53.3	44.4	65.3	69.7	62.3
7/5/2016	9:18:00 AM	50.2	52.9	47.7	53.7		62.7	49.4	54.5		61.3	-	58.5	60.8	-	48.1	53.5	44.0	65.9	69.1	62.3
7/5/2016	9:19:00 AM	52.1	57.6	49.6	53.0		59.6	50.2	56.3		62.6	-	59.6	67.7	-	46.7	52.0	43.2	66.1	69.5	63.4
7/5/2016	9:20:00 AM	52.6	57.7	48.8	52.9		56.0	50.8	53.9		67.2	-	59.3	67.7	-	46.1	50.7	42.1	66.7	71.3	63.2
7/5/2016	9:21:00 AM	52.5	56.3	49.5	54.4		59.4	50.8	51.7		56.7	-	59.6	69.9	-	48.1	54.7	43.6	65.9	69.4	62.9
7/5/2016	9:22:00 AM	52.5	60.7	50.6	54.1		57.7	50.1	54.9		60.8	-	58.3	65.5	-	47.1	53.5	43.1	65.3	68.2	62.6
7/5/2016	9:23:00 AM	52.2	67.1	46.7	55.6		59.0	52.4	55.6		62.7	-	58.5	61.2	-	48.4	54.7	44.0	65.9	70.1	62.9
7/5/2016	9:24:00 AM	50.2	55.5	46.4	53.8		56.3	50.7	53.5		57.8	-	58.6	61.8	-	47.0	54.0	43.4	66.4	70.2	64.0
7/5/2016	9:25:00 AM	51.2	58.8	48.6	53.6		60.7	49.2	57.3		67.2	-	59.3	64.9	-	46.4	51.3	43.1	66.2	70.1	63.0
7/5/2016	9:26:00 AM	51.7	57.7	47.2	58.9		68.8	51.3	56.7		67.0	-	58.4	61.9	-	46.6	52.7	43.5	67.3	71.5	61.6
7/5/2016	9:27:00 AM	50.9	55.7	47.6	51.8		54.5	50.0	53.5		58.7	-	59.3	62.5	-	46.2	52.5	43.0	66.1	70.3	62.3
7/5/2016	9:28:00 AM	51.3	58.4	46.5	54.4		64.9	49.8	53.5		57.8	-	58.9	63.7	-	46.2	51.1	43.1	65.5	69.9	61.6
7/5/2016	9:29:00 AM	53.3	60.7	48.1	50.6		52.3	49.0	51.9		57.0	-	59.0	62.3	-	47.0	52.6	43.3	65.9	72.6	62.9
7/5/2016	9:30:00 AM	52.6	61.6	47.3	52.9		60.7	49.1	55.0		63.6	-	59.4	63.6	-	46.2	52.9	42.8	66.4	70.9	63.6
7/5/2016	9:31:00 AM	49.9	53.8	46.8	51.7		55.7	49.0	57.0		65.8	-	58.3	61.5	-	46.7	53.5	43.6	66.0	69.6	62.1
7/5/2016	9:32:00 AM	47.9	54.1	45.6	54.4		60.5	50.8	54.2		59.3	-	59.4	66.6	-	47.0	53.1	43.5	66.0	70.8	62.4
7/5/2016	9:33:00 AM	48.7	54.3	45.8	57.2		66.7	51.4	53.3		58.7	-	60.4	67.2	-	47.0	54.2	43.3	84.0	100.6	64.4
7/5/2016	9:34:00 AM	50.7	57.0	47.5	54.2		62.0	49.4	51.3		56.9	-	60.3	67.9	-	46.6	55.9	43.2	66.3	70.5	62.6
7/5/2016	9:35:00 AM	61.3	74.1	47.0	53.3		60.4	50.1	53.5		57.0	-	59.1	62.4	-	46.3	52.6	43.1	66.6	71.1	61.1
7/5/2016	9:36:00 AM	49.0	56.4	46.4	57.6		65.3	52.3	53.0		58.2	-	59.2	62.6	-	46.6	54.6	43.1	65.9	69.3	62.1
7/5/2016	9:37:00 AM	50.4	60.1	47.8	54.7		63.0	50.3	53.1		60.9	-	58.9	61.7	-	47.2	54.7	43.2	65.6	69.3	61.4
7/5/2016	9:38:00 AM	59.3	73.7	48.1	56.9		65.6	51.2	51.6		63.7	-	58.2	62.7	-	47.0	55.1	43.0	66.4	69.9	62.6
7/5/2016	9:39:00 AM	49.7	55.3	48.0	54.2		60.7	50.3	52.9		58.1	-	57.7	60.4	-	47.1	54.1	43.2	65.3	69.9	61.5
7/5/2016	9:40:00 AM	49.6	52.7	47.3	58.3		69.7	50.4	55.4		66.0	-	59.5	67.2	-	46.3	52.6	42.8	66.5	71.4	62.0
7/5/2016	9:41:00 AM	49.1	53.2	47.0	53.8		61.0	50.3	56.6		65.5	-	59.7	67.3	-	47.4	55.7	43.0	66.8	70.4	63.2
7/5/2016	9:42:00 AM	52.4	57.7	48.3	51.8		56.4	49.9	54.9		63.7	-	60.5	71.1	-	47.1	55.4	43.5	65.8	70.2	62.8
7/5/2016	9:43:00 AM	53.7	56.3	52.5	51.7		56.0	49.9	55.4		61.5	-	59.3	64.2	-	46.4	52.9	42.8	65.4	69.1	61.9
7/5/2016	9:44:00 AM	54.6	58.0	53.0	53

7/5/2016	10:01:00 AM	49.2	55.6	46.0	54.2		58.2	50.8	51.2		58.9	-	58.3	60.3	-	44.5	52.2	41.8	66.7	74.5	63.0
7/5/2016	10:02:00 AM	48.7	52.8	46.4	59.7		69.8	53.9	54.3		62.0	-	58.2	60.6	-	44.7	50.6	42.2	67.4	71.2	62.5
7/5/2016	10:03:00 AM	48.6	54.6	44.4	58.1		62.3	53.6	55.8		63.3	-	58.9	65.2	-	45.2	49.6	42.4	66.1	69.8	61.8
7/5/2016	10:04:00 AM	47.1	53.4	43.4	55.5		60.2	52.6	52.9		60.2	-	58.3	61.5	-	45.1	49.9	42.9	66.4	72.8	62.3
7/5/2016	10:05:00 AM	48.0	51.7	44.9	59.8		65.3	53.7	54.8		62.2	-	58.5	65.8	-	45.0	50.8	42.7	65.9	71.2	62.1
7/5/2016	10:06:00 AM	51.6	59.1	45.7	67.6		73.7	61.4	55.9		63.3	-	58.7	62.2	-	45.3	51.5	42.7	66.2	70.0	61.6
7/5/2016	10:07:00 AM	49.9	63.4	44.7	57.6		64.4	54.7	56.5		62.2	-	58.8	61.3	-	45.8	50.4	43.1	65.9	70.1	61.8
7/5/2016	10:08:00 AM	49.5	54.2	45.6	55.9		59.4	52.1	53.4		59.1	-	59.4	65.9	-	46.3	52.1	43.3	66.4	70.9	60.2
7/5/2016	10:09:00 AM	48.8	60.1	43.6	55.2		62.5	51.3	52.6		60.5	-	58.9	63.0	-	48.8	55.3	43.3	66.6	70.7	62.8
7/5/2016	10:10:00 AM	53.5	64.3	47.1	56.4		59.6	53.2	57.4		63.9	-	58.6	63.0	-	45.2	50.5	42.7	66.7	71.7	61.6
7/5/2016	10:11:00 AM	54.6	56.0	52.8	56.5		62.0	53.7	55.7		63.2	-	56.9	60.2	-	45.9	51.8	43.2	67.8	72.8	63.5
7/5/2016	10:12:00 AM	55.2	67.6	53.6	58.3		66.8	53.9	59.9		79.5	-	57.7	60.4	-	53.7	62.6	45.9	66.7	70.7	62.9
7/5/2016	10:13:00 AM	55.6	66.3	53.5	57.8		61.4	54.3	61.0		74.6	-	58.7	62.8	-	65.3	73.3	50.3	66.4	70.1	62.3
7/5/2016	10:14:00 AM	56.2	71.2	46.2	58.6		64.0	53.9	55.2		71.7	-	57.7	61.3	-	59.0	69.8	45.3	67.6	71.6	63.1
7/5/2016	10:15:00 AM	50.4	61.9	45.1	59.8		70.3	52.7	64.2		78.6	-	58.7	64.5	-	45.3	49.5	43.5	68.1	77.2	64.0
7/5/2016	10:16:00 AM	48.9	57.4	46.2	60.7		68.0	55.0	66.2		80.4	-	58.4	61.4	-	44.9	48.1	43.2	67.7	75.9	64.1
7/5/2016	10:17:00 AM	51.2	59.6	47.3	57.1		62.5	53.4	64.3		75.1	-	58.5	63.2	-	45.1	48.5	42.9	67.5	73.6	63.1
7/5/2016	10:18:00 AM	51.1	54.2	47.7	60.9		67.7	56.4	64.7		81.2	-	59.0	68.3	-	44.6	49.5	42.2	67.3	76.1	63.7
7/5/2016	10:19:00 AM	49.2	55.3	46.3	63.8		71.2	56.0	55.4		59.4	-	59.0	72.1	-	44.7	51.8	42.2	65.8	69.8	62.3
7/5/2016	10:20:00 AM	57.4	66.3	49.0	61.1		66.0	55.6	57.8		66.5	-	58.3	62.5	-	44.9	49.5	42.8	66.0	68.9	62.9
7/5/2016	10:21:00 AM	49.2	53.4	46.5	56.9		60.6	53.8	57.0		67.6	-	60.2	65.2	-	44.9	48.3	42.6	65.9	69.5	62.1
7/5/2016	10:22:00 AM	50.1	58.3	45.9	58.6		65.4	53.5	61.3		75.1	-	59.2	62.9	-	45.5	49.3	42.8	66.9	69.9	61.6
7/5/2016	10:23:00 AM	49.9	58.5	46.1	55.7		60.0	52.8	56.5		67.5	-	58.3	61.3	-	44.6	49.2	42.7	66.4	71.6	62.1
7/5/2016	10:24:00 AM	52.3	57.8	44.4	56.5		61.5	53.5	49.8		56.7	-	58.1	60.5	-	53.3	63.1	43.6	67.3	72.1	62.3
7/5/2016	10:25:00 AM	54.4	56.1	52.6	58.1		65.2	54.5	51.8		57.3	-	57.6	59.6	-	50.3	63.7	41.5	66.4	73.0	63.2
7/5/2016	10:26:00 AM	55.0	56.8	53.7	58.9		64.4	54.1	52.0		58.0	-	58.2	66.3	-	54.8	75.1	43.7	67.1	70.9	63.3
7/5/2016	10:27:00 AM	54.5	57.0	53.0	59.9		66.0	55.0	53.5		58.6	-	57.9	61.0	-	45.9	52.2	42.9	66.8	72.4	62.9
7/5/2016	10:28:00 AM	52.6	57.4	48.4	56.1		61.9	52.7	54.6		60.0	-	58.0	61.6	-	45.1	52.6	42.7	66.9	71.3	63.0
7/5/2016	10:29:00 AM	48.8	54.6	45.4	56.7		61.2	52.6	53.1		60.5	-	58.7	61.9	-	46.9	53.0	44.5	66.4	70.5	61.9
7/5/2016	10:30:00 AM	47.9	53.1	45.4	57.1		65.2	53.6	52.6		60.4	-	58.8	62.5	-	47.3	51.8	44.5	66.0	70.8	62.2
7/5/2016	10:31:00 AM	50.7	54.7	47.0	57.1		61.1	54.4	54.2		60.8	-	59.2	61.6	-	49.4	55.3	45.0	66.5	70.8	61.6
7/5/2016	10:32:00 AM	50.7	56.4	47.8	56.9		62.6	52.1	52.4		57.7	-	58.8	62.9	-	63.4	71.1	48.8	66.6	70.2	61.8
7/5/2016	10:33:00 AM	51.3	57.6	46.5	53.1		56.2	50.2	54.2		67.5	-	58.7	63.6	-	53.1	63.1	44.7	66.4	71.2	61.3
7/5/2016	10:34:00 AM	64.1	77.8	45.3	56.8		63.7	52.5	58.6		69.8	-	58.4	61.5	-	54.7	63.2	44.2	66.9	71.4	63.4
7/5/2016	10:35:00 AM	50.9	56.3	45.7	53.5		58.0	51.0	61.1		67.8	-	58.3	61.9	-	48.7	56.7	43.6	66.4	70.9	62.1
7/5/2016	10:36:00 AM	50.0	58.6	46.3	54.4		60.9	51.5	54.4		59.6	-	58.6	62.4	-	45.7	52.2	43.7	66.6	70.5	63.4
7/5/2016	10:37:00 AM	60.1	70.7	46.7	62.1		74.2	52.6	52.3		57.6	-	58.8	65.3	-	46.1	51.3	43.9	66.8	70.5	61.9
7/5/2016	10:38:00 AM	60.2	69.6	53.3	56.9		65.1	52.7	55.5		66.1	-	58.8	61.2	-	45.7	49.8	43.6	66.4	72.6	63.0
7/5/2016	10:39:00 AM	57.2	66.3	53.8	55.4		61.0	51.2	54.5		58.3	-	59.2	66.0	-	45.8	50.6	43.3	66.7	71.4	61.9
7/5/2016	10:40:00 AM	54.7	56.7	53.5	55.8		64.3	50.1	56.8		60.9	-	57.7	60.0	-	46.1	50.6	43.7	67.1	74.2	63.1
7/5/2016	10:41:00 AM	53.8	57.5	48.5	55.6		63.8	50.1	56.2		62.8	-	58.3	61.5	-	51.8	64.6	43.3	66.1	71.8	62.1
7/5/2016	10:42:00 AM	47.8	57.4	44.2	57.6		64.2	52.2	53.4		62.0	-	64.3	80.3	-	51.0	63.9	43.8	66.8	71.3	62.3
7/5/2016	10:43:00 AM	48.3	52.3	44.7	65.3		71.2	55.5	53.3		58.6	-	58.8	61.3	-	49.5	55.7	44.7	66.2	70.6	61.1
7/5/2016	10:44:00 AM	52.3	59.1	47.6	58.0		64.1	51.1	55.0		64.9	-	59.5	65.8	-	50.7	57.9	45.0	65.9	69.9	63.0
7/5/2016	10:45:00 AM	53.4	60.3	46.5	56.1		64.9	51.3	59.9		68.9	-	58.9	63.9	-	66.0	73.2	52.0	66.6	71.0	62.3
7/5/2016	10:46:00 AM	47.5	49.9	45.3	57.9		69.4	51.1	59.1		68.9	-	58.4	62.7	-	55.0	67.6	44.0	66.5	72.7	62.0
7/5/2016	10:47:00 AM	53.5	69.0	45.7	59.0		68.5	52.6	60.8		71.8	-	58.7	65.7	-	45.2	54.8	42.7	65.9	69.5	62.2
7/5/2016	10:48:00 AM	56.2	69.0	44.6	60.5		65.9	54.8	61.4		69.1	-	57.8	62.9	-	45.9	55.8	43.1	66.6	69.8	63.2
7/5/2016	10:49:00 AM	50.4	58.1	45.9	56.3		60.6	53.3	55.2		62.6	-	58.4	62.3	-	46.6	59.3	43.2	66.1	69.3	63.0
7/5/2016	10:50:00 AM	53.7	58.0	46.8	58.1		67.0	51.2	54.3		62.5	-	60.5	66.4	-	45.5	54.0	43.2	66.3	70.5	63.8
7/5/2016	10:51:00 AM	54.6	56.8	52.9	61.4		71.9	54.6	52.0		58.7	-	58.5	61.1	-	45.2	52.8	42.8	66.3	69.9	62.2
7/5/2016	10:52:00 AM	59.6	68.3	53.8	59.3		68.4	53.3	54.8		61.5	-	59.1	61.7	-	45.4	51.1	43.2	66.1	68.8	62.6
7/5/2016	10:53:00 AM	55.0	59.8	53.4	54.2		61.1	50.6	56.1		63.3	-	59.5	68.3	-	45.1	51.9	42.6	67.1	76.2	62.7
7/5/2016	10:54:00 AM	59.6	67.4	45.8	56.9		63.9	52.7	52.9		59.5	-	58.3	61.2	-	45.5	51.3	43.3	66.8	71.3	62.7
7/5/2016	10:55:00 AM	48.4	57.7	45.2	57.6		64.0	53.6	54.5		60.8	-	59.8	64.2	-	45.4	51.0	43.2	66.7	71.6	63.0
7/5/2016	10:56:00 AM	47.4	54.6	44.6	55.5		59.6	53.3	54.7		61.8	-	61.3	71.8	-	46.0	53.0	43.6	66.6	70.8	61.5
7/5/2016	10:57:00 AM	48.7	54.7	46.2	56.0		63.2	52.6	53.3		60.1	-	66.8	81.7	-	46.4	52.2	44.2	65.8	70.9	62.4
7/5/2016	10:58:00 AM	49.3	56.6	46.2	58.9		65.4	53.1	53.7		62.0	-	59.0	64.4	-	51.4	61.3	45.5	66.4	70.6	61.3
7/5/2016	10:59:00 AM	50.3	54.1	46.3	53.7		58.5	50.6	60.5		84.3	-	58.3	67.4	-	64.7	72.1	51.3	65.8	70.2	60.2
7/5/2016	11:00:00 AM	49.4	55.2	46.3	52.7	60.2	57.8	50.1	52.3	60.9	59.6	-	58.3	61.4	-	59.0	69.8	48.1	67.1	71.9	62.5
7/5/2016	11:01:00 AM	48.9	52.1	46.3	55.9		63.8	51.2	64.7		80.9	-	59.5	64.5	-	47.7	60.0	43.3	66.3	72.1	59.9
7/5/2016	11:02:00 AM	51.1	58.0	46.1	55.9		62.3	52.0	62.1		69.2	-	58.5	61.8	-	45.6	49.9	43.7	66.4	71.4	61.5
7/5/2016	11:03:00 AM	54.7	57.6	52.5	54.8		59.1	51.5	56.0		63.6	-	59.4	62.6	-	45.5	49.7	43.4	66.0	71.0	61.3
7/5/2016	11:04:00 AM	55.4	64.0	53.9	58.8		64.1	54.3	54.0		61.4	-	57.8	59.9	-	44.9	48.5	42.8	66.6	70.1	62.3
7/5/2016	11:05:00 AM	59.3	65.0	53.9	54.5		59.0	51.8	52.5		59.3	-	57.5	60.8	-	45.4	53.6	43.4	66.6	71.2	62.2
7/5/2016	11:06:00 AM	54.3	58.4	53.1	63.8		72.2	51.2	51.8		59.4	-	58.5	61.0	-	45.8	52.4	43.1	66.3	71.1	61.9
7/5/2016	11:07:00 AM	51.6	57.5	46.4	63.0		70.1	55.0	51.3		55.8	-	58.9	61.8	-	46.3	53.3	43.1	65.9	70.3	62.3
7/5/2016	11:08:00 AM	50.0	53.4	45.8	65.7		74.0	54.8	53.9		61.1	-	59.7	65.3	-	46.0	50.4	43.8	65.8	69.7	61.9
7/5/2016	11:09:00 AM	56.1	77.0	46.8	56.5		65.4	51.7	52.3		59.1	-	58.3	64.6	-	46.5	51.6	44.2	66.5	71.4	61.4
7/5/2016	11:10:00 AM	51.5	63.4	46.1	56.1		59.9	51.6	53.4		64.5	-	57.6	63.3	-	46.8	53.8	44.7	66.4	71.8	61.2
7/5/2016	11:11:00 AM	46.6	55.1	44.3	56.0		64.5	50.7	55.0		61.6	-	58.7	67.5	-	47.7	52.3	44.2	66.5	71.6	62.3
7/5/2016	11:12:00 AM	50.2	53.8	47.5	54.1		57.6	52.0	52.6		58.2	-	58.1	61.0	-	46.4	50.0	43.9	66.9	71.1	61.2
7/5/2016	11:13:00 AM	49.4	59.3	45.7	54.6		61.4	50.1	58.7		66.7	-	59.0	65.1	-	45.5	49.5	43.3	66.9	74.2	63.9
7/5/2016	11:14:00 AM	51.8	66.2	46.2	57.5		67.8	51.8	53.6		58.5	-	60.0	68.0	-	46.1	50.5	43.8	66.8	70.9	62.3
7/5/2016	11:15:00 AM	56.2	68.5	48.0	54.1		58.7	52.0	55.1		67.9	-	58.4	60.7	-	44.9	48.4	42.7	66.2	69.5	59.7
7/5/2016	11:16:00 AM	53.9	58.3	52.9	54.7		57.9	52.2	53.1		62.3	-	58.2	61.3	-	44.9	54.1	42.3	66.1	70.3	62.0
7/5/2016	11:17:00 AM	54.2	59.6	52.7	53.6		56.6	51.4	53.0		60.3	-	58.5	63.8	-	45.1	52.6	42.9	66.3	69.8	61.8
7/5/2016	11:18:00 AM	53.7	56.6	52.4	55.4		59.3	52.3	51.8		59.9	-	57.7	60.2	-	45.5	56.1	42.6	66.3	70.4	62.1
7/5/2016	11:19:00 AM	51.9	57.9	46.3	59.3		63.6	52.8	68.4		90.5	-	57.4	63.5	-	45.8	52.5	42.7	66.7	70.2	63.1
7/5/2016	11:20:00 AM	51.9	61.8	47.3	54.7		60.8	51.8	72.8		92.0	-	58.0	62.2	-	44.7	48.7	42.9	67.2	71.6	63.1
7/5/2016	11:21:00 AM	48.0	60.1	44.1	55.9		63.2	50.9	72.7		90.7	-	58.7	62.5	-	45.0	51.0	43.1	66.6	71.4	62.4
7/5/2016	11:22:00 AM	54.6	71.2	46.1	55.9		59.8	51.7	66.9		88.5	-	58.5	68.1	-	45.1	49.8	43.1	67.2	71.4	62.9
7/5/2016	11:23:00 AM	65.9	84.8	58.9	60.1		69.3	53.6	66.3		82.8	-	57.4	60.0	-	45.0	48.0	43.2	67.0	73.9	61.9
7/5/2016	11:24:00 AM	63.9	76.8	60.3	53.1		55.9	50.8	66.2		88.2	-	59.0	68.7	-	44.9	48.8	42.3	66.3	70.9	60.7
7/5/2016	11:25:00 AM	60.9	76.6	47.6	55.5		61.0	51.1	60.2		68.8	-	58.7	64.1	-	44.8	48.1	42.4	66.6	70.5	61.6
7/5/2016	11:26:00 AM	49.7	56.6	46.2	55.7		58.6	52.6	53.6		66.1	-	58.6	63.0	-	44.6	48.9	42.4	67.0	71.8	58.4
7/5/2016	11:27:00 AM	53.4	61.3	47.6	55.1		61.7	50.7	50.8		53.7	-	59.0	63.2	-	44.5	48.1	42.3	65.9	76.5	61.8
7/5/2016	11:28:00 AM	53.5	58.4	52.3	57.4		62.9	51.0	52.1		56.8	-	64.4	80.7	-	45.8	50.4	42.6	66.7	74.2	62.4
7/5/2016	11:29:00 AM	53.9	55.2	53.0	55.4		61.4	52.0	50.9		53.8	-	57.7	60.6	-	45.4	50.2	42.9	67.5	75.7	64.0
7/5/2016	11:30:00 AM	61.7	70.9	53.6	55.2		60.1	51.7	52.0		55.0	-	57.3	59.0	-	48.9	58.6	43.6	66.9	71.5	62.9
7/5/2016	11:31:00 AM	55.0	61.9	52.9	54.6		57.7	52.5	50.8		53.5	-	58.0	62.6	-	46.4	53.0	43.1	67.1	73.0	63.3
7/5/2016	11:32:00 AM	49.3	60.6	45.6	54.1		56.7	51.6	53.2		66.4	-	58.6	62.4	-	44.7	48.8	42.7	66.3	71.9	61.8
7/5/2016	11:33:00 AM	48.0	51.2	45.5	57.3		68.5	51.0	49.7		55.5	-	57.9	62.9	-	45.5	49.7	43.2	66.4	69.9	62.4
7/5/2016	11:34:00 AM	51.7	66.6	45.6	55.8		60.0	51.7	50.8		54.0	-	58.6	62.6	-	44.8	48.1	42.4	66.7	71.6	62.3
7/5/2016	11:35:00 AM	49.3	60.5	46.2	60.0		65.0	55.0	50.9		58.0	-	58.1	61.4	-	44.6	50.3	42.8	66.3	70.1	61.1
7/5/2016	11:36:00 AM	51.1	60.4	47.2	60.5		68.6	54.4	51.8		55.5	-	59.0	65.7	-	44.6	47.9	42.4	67.1	71.8	62.5
7/5/2016	11:37:00 AM	52.4	60.3	47.0	62.9		71.6	53.4	51.9		59.8	-	58.9	64.6	-	45.6	49.1	42.8	67.5	72.9	63.8
7/5/2016	11:38:00 AM	51.5	57.1	48.1	54.2		58.4	51.1	51.2		54.5	-	58.9	66.1	-	45.0	47.7	42.7	66.3	70.6	62.2
7/5/2016	11:39:00 AM	53.4	58.0	49.2	55.4		61.0	51.4	53.5		67.3	-	57.5	60.7	-	45.1	56.7	43.1	66.4	69.8	61.7
7/5/2016	11:40:00 AM	56.6	67.8	53.5	57.0		63.9	52.2	50.2		54.3	-	58.1	61.6	-	44.9	50.8	42.8	67.0	71.1	63.3
7/5/2016	11:41:00 AM	55.2	58.4	53.5	67.9		73.8	59.2	52.7		59.9	-	58.0	62.1	-	44.2	47.0	42.6	67.4	72.3	61.5
7/5/2016	11:42:00 AM	57.6	66.6	53.7	71.2		78.3	60.4	51.0		56.3	-	57.1	60.6	-	45.1	49.8	42.9	66.9	72.6	62.3
7/5/2016	11:43:00 AM	54.4	57.1	53.2	65.1		68.8	59.1	52.5		54.5	-	57.1	60.2	-	44.9	48.5	43.1	67.9	72.8	64.1
7/5/2016	11:44:00 AM	51.8	57.6	48.2	63.4		69.1	56.7	53.4		56.2	-	56.0	64.5	-	45.7	50.7	43.5	66.7	71.8	61.4
7/5/2016	11:45:00 AM	56.0	77.5	47.5	63.2		67.9	56.6	52.0		55.8	-	56.8	62.1	-	44.6	48.2	42.2	67.5	72.6	63.8
7/5/2016	11:46:00 AM	50.4	58.2	47.6	60.4		65.2	54.7	50.7		54.0	-	57.7	60.8	-	44.6	49.5	41.7	66.4	71.9	62.2
7/5/2016	11:47:00 AM	51.4	66.8	47.9	58.7		64.9	54.0	53.7		58.9	-	56.7	60.0	-	44.8	49.1	42.7	66.7	70.6	61.9
7/5/2016	11:48:00 AM	52.0	59.3	47.6	57.0		62.2	53.1	53.0		59.4	-	57.1	60.6	-	45.5	49.2	42.8	66.9	71.5	62.1
7/5/2016	11:49:00 AM	53.6	63.1	45.4	57.8		62.9	53.9	54.4		64.4	-	57.6	60.1	-	45.8	48.9	43.4	66.6	70.4	62.0
7/5/2016	11:50:00 AM	52.3	73.3	45.6	56.7		62.7	52.5	51.8		59.6	-	57.6	61.1	-	44.9	48.6	42.8	66.4	69.4	61.9
7/5/2016	11:51:00 AM	52.6	57.9	46.7	56.2		62.0	51.8	50.8		56.3	-	58.0	61.0	-	45.0	49.1	42.8	66.5	70.8	62.4
7/5/2016	11:52:00 AM	53.4	54.8	52.4	59.9		66.9	54.2	51.7		53.9	-	58.3	62.0	-	45.3	48.5	43.5	66.9	71.9	62.0
7/5/2016	11:53:00 AM	54.9	60.7	53.0	56.8		62.0	52.6	50.5		57.5	-	58.8	63.7	-	44.9	51.4	42.6	66.1	70.3	63.3
7/5/2016	11:54:00 AM	56.1	65.2	53.1	58.1		67.5	54.0	52.0		55.3	-	58.7	64.1	-	44.9	48.1	42.8	66.9	69.1	64.0
7/5/2016	11:55:00 AM	56.7	70.1	53.0	55.4		61.0	52.7	52.2		54.9	-	57.7	60.2	-	44.7	51.1	42.6	66.4	69.4	63.6
7/5/2016	11:56:00 AM	55.8	77.0	44.5	61.2		70.9	52.5	51.8		57.5	-	58.3	60.9	-	44.0	47.3	41.8	66.4	71.0	62.4
7/5/2016	11:57:00 AM	54.8	66.3	45.1	60.9		71.9	55.0	52.7		60.8	-	59.1	63.8	-	45.0	48.7	42.9	66.2	71.5	61.4
7/5/2016	11:58:00 AM	62.2	74.4	48.5	56.7		61.9	52.4	52.4		64.9	-	58.0	64.9	-	44.5	53.9	42.0	66.8	70.5	61.0
7/5/2016	11:59:00 AM	48.7	52.8	45.1	56.8		64.3	53.1	51.4		65.6	-	57.9	63.9	-	46.3	52.8	43.3	67.1	71.5	62.5
7/5/2016	12:00:00 PM	53.4	63.8	45.5	54.5	57.8	60.0	51.6	53.1	52.9	59.3	-	58.8	64.5	-	44.5	48.6	42.3	66.1	70.3	61.6
7/5/2016	12:01:00 PM	56.0	69.0	47.0	56.4		62.2	53.0	52.5		55.8	-	61.1	71.9	-	45.0	48.7	42.4	66.6	71.3	62.6
7/5/2016	12:02:00 PM	50.0	57.3	46.5	55.3		60.8	51.3	52.2		57.7	-	59.3	67.2	-	46.0	50.0	43.2	66.4	71.2	61.6
7/5/2016	12:03:00 PM	69.9	80.2	53.6	56.8		64.5	50.8	51.9		60.4	-	57.7	63.0	-	45.4	49.1	43.0	66.8	71.7	62.2
7/5/2016	12:04:00 PM	53.8	59.4	52.4	53.2		55.6	51.6	53.0		59.2	-	59.9	67.5	-	45.4	52.3	43.3	65.9	70.1	61.4
7/5/2016	12:05:00 PM	53.6	58.0	52.0	59.3		68.0	53.5	52.1		55.3	-	58.4	64.7	-	53.4	65.8	42.9	66.1	70.9	62.4
7/5/2016	12:06:00 PM	54.0	57.4	52.4	58.9		70.6	53.7	50.4		55.1	-	59.2	70.0	-	45.0	50.7	41.9	66.9	73.5	63.5
7/5/2016	12:07:00 PM	54.7	56.5	52.9	59.2		67.4	53.8	51.5		55.2	-	57.8	63.9	-	45.6	50.0	43.2	66.7	70.8	62.7
7/5/2016	12:08:00 PM	52.5	57.3	48.3	57.1		67.4	53.1	54.4		62.9	-	59.3	71.5	-	45.1	54.1	42.9	66.7	69.9	63.4
7/5/2016	12:09:00 PM	50.3	56.6	45.8	56.4		60.7	52.5	50.6		55.3	-	57.2	67.5	-	45.2	50.2	43.3	67.4	71.0	63.0
7/5/2016	12:10:00 PM	49.4	53.9	45.2	57.8	

7/5/2016	12:27:00 PM	53.3	58.7	51.8	55.1		65.7	49.1	51.0		57.1	-	65.4	73.9	-	48.9	57.4	43.6	65.4	68.4	60.4
7/5/2016	12:28:00 PM	52.4	54.2	51.4	50.7		52.4	49.1	53.3		58.5	-	65.9	77.5	-	46.6	53.5	43.3	66.3	72.5	63.0
7/5/2016	12:29:00 PM	52.8	60.0	51.8	54.4		61.7	49.5	52.5		56.4	-	56.5	58.9	-	46.7	51.8	43.5	67.1	77.4	62.5
7/5/2016	12:30:00 PM	53.2	58.6	52.1	56.0		62.0	50.1	54.2		61.2	-	57.0	68.7	-	46.0	50.0	42.2	66.8	70.2	63.3
7/5/2016	12:31:00 PM	54.0	63.7	48.1	57.9		65.2	50.7	54.4		59.0	-	61.8	76.1	-	46.4	51.5	43.1	67.0	70.2	63.7
7/5/2016	12:32:00 PM	61.8	82.4	47.1	54.6		60.7	50.0	52.2		58.3	-	57.3	59.8	-	45.4	52.4	42.7	66.0	70.5	59.6
7/5/2016	12:33:00 PM	52.2	59.9	46.7	54.4		61.9	49.8	52.6		57.5	-	56.8	63.3	-	46.4	54.6	43.5	67.0	71.7	62.7
7/5/2016	12:34:00 PM	50.2	58.5	47.2	56.6		63.6	51.1	54.4		58.3	-	58.0	61.6	-	47.2	53.5	43.3	66.3	70.7	62.2
7/5/2016	12:35:00 PM	49.6	58.2	46.4	56.6		61.8	50.6	52.7		55.7	-	56.7	60.5	-	46.6	52.1	42.9	66.2	69.3	61.8
7/5/2016	12:36:00 PM	50.9	55.3	46.3	66.2		70.9	57.3	53.6		63.7	-	60.7	71.5	-	47.1	55.0	44.0	66.9	70.6	63.4
7/5/2016	12:37:00 PM	49.4	57.3	45.9	59.9		67.4	53.9	52.6		57.3	-	60.4	72.2	-	46.4	52.4	43.6	66.8	71.0	62.0
7/5/2016	12:38:00 PM	53.7	60.1	52.1	57.8		62.4	54.4	50.8		55.1	-	58.2	62.9	-	46.3	51.5	43.9	66.9	72.4	62.1
7/5/2016	12:39:00 PM	53.8	55.9	52.6	60.5		66.3	56.0	51.9		57.3	-	58.2	62.7	-	45.9	51.7	43.4	66.2	70.3	61.6
7/5/2016	12:40:00 PM	53.6	57.9	52.1	62.1		68.8	55.5	54.5		62.1	-	56.8	59.4	-	45.9	52.9	43.4	66.4	70.6	60.0
7/5/2016	12:41:00 PM	53.7	56.3	52.1	62.1		70.7	53.3	53.1		62.0	-	58.7	69.1	-	47.3	53.6	44.5	66.7	71.1	61.4
7/5/2016	12:42:00 PM	55.5	73.4	52.5	58.1		62.9	53.0	52.6		56.0	-	62.1	85.9	-	46.7	52.7	43.4	66.8	70.9	63.1
7/5/2016	12:43:00 PM	51.3	58.4	47.3	52.8		59.1	49.2	52.4		59.9	-	56.9	61.7	-	46.1	50.8	43.0	66.6	74.7	62.2
7/5/2016	12:44:00 PM	48.7	52.8	46.3	53.8		59.5	49.6	53.4		58.2	-	57.4	60.3	-	47.0	53.9	43.3	66.2	71.5	60.4
7/5/2016	12:45:00 PM	46.6	54.0	45.1	55.2		59.2	53.3	54.7		62.6	-	56.9	63.3	-	46.3	51.9	43.2	66.7	77.6	62.6
7/5/2016	12:46:00 PM	48.3	62.4	44.5	56.0		62.5	50.6	52.5		55.1	-	57.1	66.6	-	45.7	50.9	43.2	67.1	76.4	63.9
7/5/2016	12:47:00 PM	50.0	58.4	47.9	61.5		69.1	52.8	52.5		58.6	-	56.9	60.0	-	46.5	55.0	43.1	68.2	77.2	63.3
7/5/2016	12:48:00 PM	50.7	64.3	46.7	56.5		66.0	50.5	51.8		54.6	-	60.5	70.8	-	46.9	54.8	43.6	67.8	77.4	64.2
7/5/2016	12:49:00 PM	53.6	62.7	48.7	58.8		72.1	49.8	50.6		55.7	-	58.9	65.8	-	47.0	53.8	43.5	67.0	71.6	63.9
7/5/2016	12:50:00 PM	55.2	63.5	53.1	56.5		66.1	49.3	52.1		57.8	-	56.9	61.1	-	47.2	55.2	43.3	67.2	70.4	63.6
7/5/2016	12:51:00 PM	54.6	64.3	52.7	56.6		65.7	51.5	52.0		56.9	-	60.9	68.8	-	46.6	53.0	43.7	67.1	73.0	62.6
7/5/2016	12:52:00 PM	55.8	62.3	52.7	59.4		70.7	51.0	51.6		58.9	-	59.9	70.7	-	46.7	54.9	43.8	67.3	72.3	62.5
7/5/2016	12:53:00 PM	53.6	59.6	52.1	56.4		64.0	51.8	54.1		65.4	-	57.3	62.1	-	47.8	54.1	43.9	67.0	72.0	63.9
7/5/2016	12:54:00 PM	54.6	64.9	52.4	57.8		62.8	52.0	58.7		75.4	-	57.3	61.8	-	46.3	52.0	43.7	67.0	71.1	63.3
7/5/2016	12:55:00 PM	51.4	57.1	48.2	57.2		64.3	52.4	54.1		59.3	-	56.3	67.9	-	46.1	52.2	43.3	68.4	78.1	64.0
7/5/2016	12:56:00 PM	50.1	56.1	46.1	57.3		61.8	51.3	53.6		58.1	-	55.7	62.5	-	51.0	58.2	44.2	67.7	72.5	63.8
7/5/2016	12:57:00 PM	50.6	59.3	46.9	57.3		63.6	51.3	52.1		59.6	-	56.2	67.6	-	46.9	54.3	43.6	67.1	73.9	63.9
7/5/2016	12:58:00 PM	49.9	55.4	47.0	53.4		60.0	49.8	51.1		53.8	-	57.2	60.9	-	47.3	53.3	44.5	67.2	73.2	62.6
7/5/2016	12:59:00 PM	51.8	62.5	46.7	50.5		53.8	48.4	54.2		58.0	-	56.9	61.5	-	46.8	51.6	43.6	67.2	71.7	62.8
7/5/2016	1:00:00 PM	49.6	59.4	46.6	51.7	56.2	58.3	48.3	52.7	53.1	56.5	-	58.6	67.8	-	47.0	54.7	43.9	67.2	72.5	63.0
7/5/2016	1:01:00 PM	52.9	63.4	47.3	50.4		52.9	48.5	52.0		61.0	-	58.2	61.6	-	47.4	54.5	44.5	66.7	73.0	61.5
7/5/2016	1:02:00 PM	54.3	63.1	52.6	53.5		60.9	50.1	53.9		59.7	-	57.5	61.5	-	47.9	53.9	44.0	66.8	77.1	63.5
7/5/2016	1:03:00 PM	54.9	59.6	53.5	54.6		59.0	51.3	50.0		53.7	-	58.3	65.5	-	47.0	53.6	43.6	65.8	70.0	62.7
7/5/2016	1:04:00 PM	54.9	64.2	52.9	56.5		65.3	50.0	51.1		53.9	-	58.3	61.6	-	47.8	55.3	43.6	66.7	70.5	62.4
7/5/2016	1:05:00 PM	54.2	64.4	52.7	52.4		56.2	50.0	53.2		59.3	-	58.1	64.7	-	46.6	51.5	43.6	66.2	70.1	60.9
7/5/2016	1:06:00 PM	54.0	62.8	48.7	60.8		68.9	53.5	53.0		56.7	-	58.0	70.4	-	46.3	55.0	43.2	66.7	70.2	63.0
7/5/2016	1:07:00 PM	52.8	64.9	48.3	56.7		66.6	51.7	53.8		68.5	-	62.2	74.8	-	45.9	53.6	42.9	66.8	72.1	63.5
7/5/2016	1:08:00 PM	51.0	58.4	48.2	52.8		60.2	51.0	52.4		60.9	-	56.6	61.1	-	46.4	51.3	43.3	66.8	72.7	62.3
7/5/2016	1:09:00 PM	49.7	56.5	47.1	58.9		66.7	52.0	50.7		64.3	-	56.5	59.9	-	47.3	52.8	43.6	66.6	71.2	63.2
7/5/2016	1:10:00 PM	49.3	59.5	46.8	62.2		66.3	57.9	55.0		61.1	-	56.9	59.2	-	46.9	52.5	43.7	66.1	71.6	61.8
7/5/2016	1:11:00 PM	51.0	60.4	46.6	57.1		61.2	53.5	51.5		55.8	-	56.7	58.8	-	47.7	55.0	44.0	66.4	70.7	60.8
7/5/2016	1:12:00 PM	54.1	59.4	49.4	56.4		63.7	52.7	49.9		53.1	-	57.0	59.4	-	47.4	53.1	43.1	66.5	71.2	62.9
7/5/2016	1:13:00 PM	56.0	59.2	54.5	54.0		56.6	51.4	51.3		55.5	-	56.8	59.5	-	47.9	54.6	44.1	66.0	69.8	62.4
7/5/2016	1:14:00 PM	56.0	59.0	53.5	54.0		59.5	50.4	52.5		55.4	-	57.0	61.9	-	48.5	56.2	44.5	66.0	70.8	62.5
7/5/2016	1:15:00 PM	54.7	60.6	53.4	53.0		60.3	49.6	50.2		53.7	-	56.9	66.0	-	48.4	54.8	44.5	65.9	69.7	61.9
7/5/2016	1:16:00 PM	55.1	66.5	52.7	54.4		59.1	50.7	51.3		59.1	-	57.0	59.7	-	47.2	54.5	43.7	67.1	70.3	63.2
7/5/2016	1:17:00 PM	54.1	57.5	53.0	52.7		54.8	50.5	54.0		58.9	-	57.3	60.4	-	48.9	57.9	44.9	66.1	72.3	60.9
7/5/2016	1:18:00 PM	52.4	56.5	47.6	51.8		54.2	49.6	52.4		57.9	-	57.8	67.8	-	48.7	54.8	44.5	66.0	74.3	62.2
7/5/2016	1:19:00 PM	49.6	54.6	46.9	51.8		57.8	49.8	52.9		57.5	-	56.5	60.6	-	47.5	54.6	43.9	66.7	74.8	62.6
7/5/2016	1:20:00 PM	51.0	60.3	47.2	55.6		60.7	50.6	53.2		56.2	-	56.6	62.6	-	47.9	54.7	44.2	66.8	75.9	61.6
7/5/2016	1:21:00 PM	48.4	53.6	44.3	56.8		63.9	51.1	55.2		59.8	-	56.9	61.4	-	48.1	56.9	44.1	66.5	73.8	63.2
7/5/2016	1:22:00 PM	46.5	52.3	43.9	53.4		60.9	51.0	53.7		59.6	-	57.6	61.3	-	47.1	53.3	43.9	66.6	73.4	63.0
7/5/2016	1:23:00 PM	46.1	60.2	43.5	52.6		55.9	50.9	52.4		55.4	-	56.8	58.9	-	47.6	53.3	44.1	66.9	71.8	63.4
7/5/2016	1:24:00 PM	52.6	56.9	45.5	52.3		61.3	49.5	54.2		60.5	-	57.0	59.1	-	51.3	56.6	45.2	66.4	75.6	62.7
7/5/2016	1:25:00 PM	53.8	57.6	52.4	57.1		67.3	51.1	53.3		56.8	-	57.2	62.7	-	48.5	55.2	44.6	65.2	70.1	61.8
7/5/2016	1:26:00 PM	56.7	69.3	53.6	63.0		75.4	51.6	53.2		57.8	-	57.2	60.5	-	48.0	56.0	43.3	66.1	70.5	63.3
7/5/2016	1:27:00 PM	55.3	58.9	52.5	57.6		67.1	51.5	54.6		61.8	-	58.0	63.4	-	48.1	54.9	44.4	65.9	70.3	62.4
7/5/2016	1:28:00 PM	54.5	58.9	52.9	57.2		63.0	52.0	52.8		57.3	-	61.8	77.1	-	49.1	54.6	45.1	65.4	69.9	61.8
7/5/2016	1:29:00 PM	58.0	66.6	53.0	56.4		62.4	52.8	55.8		60.0	-	58.7	71.9	-	48.2	54.8	44.3	65.9	70.7	61.2
7/5/2016	1:30:00 PM	50.5	54.9	46.5	58.8		65.8	54.0	54.5		56.7	-	58.0	63.5	-	48.6	52.9	44.9	65.7	69.4	59.4
7/5/2016	1:31:00 PM	59.4	81.3	47.0	56.4		63.6	51.7	54.0		60.5	-	56.9	63.3	-	49.2	57.3	44.9	66.4	71.5	63.0
7/5/2016	1:32:00 PM	56.0	77.8	47.1	54.2		62.4	50.5	53.6		57.6	-	56.9	59.6	-	49.0	54.9	45.2	66.0	71.9	62.8
7/5/2016	1:33:00 PM	48.0	59.0	45.9	54.5		63.0	50.5	54.4		58.3	-	57.3	63.4	-	47.7	58.8	43.8	66.3	70.6	62.7
7/5/2016	1:34:00 PM	56.1	65.5	46.9	57.1		62.2	51.9	53.6		58.1	-	56.8	60.9	-	48.6	54.8	44.0	66.3	72.9	63.0
7/5/2016	1:35:00 PM	51.6	70.9	47.0	55.5		61.1	50.8	53.7		62.6	-	56.8	60.2	-	48.7	53.7	45.0	65.8	74.9	61.5
7/5/2016	1:36:00 PM	59.9	80.4	52.6	56.2		65.7	50.6	51.8		54.2	-	57.8	61.8	-	47.7	53.5	44.6	65.7	71.6	62.6
7/5/2016	1:37:00 PM	57.0	66.7	52.7	53.1		58.6	50.1	52.3		61.6	-	57.1	60.7	-	47.3	54.0	44.4	66.3	72.2	63.3
7/5/2016	1:38:00 PM	54.3	59.0	52.8	53.5		58.4	50.2	52.0		57.3	-	57.1	60.3	-	47.9	54.3	44.7	66.6	72.9	62.6
7/5/2016	1:39:00 PM	60.0	79.1	52.5	55.1		64.9	49.6	53.3		57.1	-	57.1	62.2	-	47.6	54.6	43.6	69.5	79.7	63.0
7/5/2016	1:40:00 PM	53.6	56.7	52.5	53.5		59.6	49.8	52.0		55.9	-	58.8	68.0	-	48.7	54.0	44.8	65.8	69.4	62.6
7/5/2016	1:41:00 PM	53.8	55.8	50.5	56.0		61.0	51.5	53.3		64.0	-	57.6	63.3	-	52.1	60.1	44.2	66.1	69.9	61.8
7/5/2016	1:42:00 PM	50.2	53.9	47.8	56.4		65.4	51.0	53.8		70.5	-	56.8	63.6	-	47.1	53.0	44.0	65.8	70.0	62.1
7/5/2016	1:43:00 PM	60.4	76.2	49.8	55.0		62.6	50.2	53.4		70.5	-	60.8	72.2	-	48.0	54.2	44.2	66.3	70.8	62.9
7/5/2016	1:44:00 PM	59.2	60.9	57.4	52.2		55.0	49.5	53.1		59.4	-	58.2	61.6	-	47.2	51.6	44.2	65.6	71.0	61.6
7/5/2016	1:45:00 PM	55.4	63.5	48.4	56.6		65.0	50.8	52.0		56.1	-	58.3	62.8	-	47.6	53.4	44.4	66.4	71.3	62.9
7/5/2016	1:46:00 PM	50.7	58.1	48.0	57.4		64.8	50.8	53.8		57.0	-	58.0	62.5	-	47.9	53.4	44.3	66.0	71.4	62.3
7/5/2016	1:47:00 PM	50.9	58.3	46.5	52.1		55.0	49.6	53.5		56.2	-	57.9	62.2	-	48.4	56.2	44.4	66.3	69.9	62.9
7/5/2016	1:48:00 PM	54.2	60.0	53.0	53.2		60.4	49.0	50.7		56.5	-	57.2	60.9	-	48.5	53.9	44.6	65.5	70.4	60.2
7/5/2016	1:49:00 PM	55.8	64.0	52.7	52.8		59.2	50.0	51.2		55.0	-	56.5	59.7	-	47.9	54.9	44.2	66.2	70.1	62.4
7/5/2016	1:50:00 PM	53.5	56.7	52.3	59.1		66.3	52.8	53.3		61.4	-	58.1	62.0	-	47.9	54.1	44.2	66.1	70.4	62.0
7/5/2016	1:51:00 PM	53.8	56.6	52.6	56.2		64.0	50.8	51.8		55.0	-	58.2	63.5	-	48.0	52.5	44.7	66.6	72.0	63.5
7/5/2016	1:52:00 PM	53.2	55.8	52.0	57.4		64.5	51.9	53.1		55.4	-	57.8	62.4	-	47.2	51.1	44.4	66.4	69.9	62.9
7/5/2016	1:53:00 PM	54.9	63.5	49.4	59.1		65.8	53.6	51.1		54.1	-	57.3	59.3	-	47.9	54.9	44.6	66.3	74.7	62.3
7/5/2016	1:54:00 PM	52.4	61.1	49.3	55.0		61.4	50.6	54.5		58.6	-	57.4	60.1	-	48.3	52.7	45.0	66.1	71.1	62.2
7/5/2016	1:55:00 PM	55.2	64.7	49.4	53.4		55.8	51.0	53.8		60.3	-	57.6	60.4	-	48.3	54.8	45.1	66.3	71.5	63.2
7/5/2016	1:56:00 PM	51.2	56.9	48.8	53.7		55.7	51.5	53.8		61.2	-	58.6	62.7	-	48.2	53.0	44.0	65.6	69.5	62.9
7/5/2016	1:57:00 PM	49.8	53.4	47.3	53.1		57.1	50.8	54.2		58.2	-	58.4	63.1	-	47.2	53.5	43.9	66.2	70.1	64.2
7/5/2016	1:58:00 PM	50.6	57.6	47.8	58.1		68.6	51.0	54.1		59.4	-	57.9	61.6	-	47.9	58.1	44.6	66.0	70.7	62.6
7/5/2016	1:59:00 PM	50.5	57.3	48.1	56.6		62.1	51.5	53.6		59.4	-	58.2	64.1	-	46.6	50.9	44.0	65.8	71.8	61.6
7/5/2016	2:00:00 PM	54.2	57.7	48.6	55.5	59.4	68.5	52.4	53.1	55.7	55.8	-	59.0	64.5	-	47.0	50.5	44.0	66.3	71.5	63.0
7/5/2016	2:01:00 PM	54.4	57.3	52.5	59.7		68.4	53.3	54.3		57.4	-	57.0	60.1	-	46.8	54.1	44.5	65.7	70.5	62.9
7/5/2016	2:02:00 PM	55.8	70.5	52.4	58.5		64.8	51.5	65.0		78.6	-	58.2	64.1	-	45.9	49.2	43.5	65.3	69.2	61.0
7/5/2016	2:03:00 PM	55.4	64.4	52.7	58.1		64.3	53.2	66.7		81.1	-	57.0	61.5	-	47.9	57.3	44.4	65.7	70.7	62.7
7/5/2016	2:04:00 PM	59.3	78.9	52.9	54.4		58.3	51.6	57.8		73.9	-	57.7	66.5	-	48.0	52.9	45.0	65.4	69.2	63.1
7/5/2016	2:05:00 PM	56.6	70.8	46.7	54.0		62.3	51.4	50.9		54.9	-	58.5	67.3	-	46.3	52.4	43.5	65.5	69.1	61.1
7/5/2016	2:06:00 PM	50.4	54.7	46.5	52.5		54.7	50.8	54.6		61.4	-	56.5	59.5	-	46.2	49.7	43.4	65.3	71.1	60.6
7/5/2016	2:07:00 PM	49.9	56.6	47.0	51.6		55.6	49.6	53.3		56.5	-	57.3	60.7	-	46.6	54.0	43.8	66.1	69.6	62.2
7/5/2016	2:08:00 PM	50.5	55.7	47.6	52.8		60.8	49.3	54.4		60.7	-	58.3	68.0	-	46.8	49.4	44.0	66.2	71.4	62.2
7/5/2016	2:09:00 PM	50.3	54.3	48.0	56.9		64.0	52.0	54.8		62.7	-	62.4	74.0	-	45.6	51.7	43.3	66.3	70.4	62.5
7/5/2016	2:10:00 PM	52.4	56.5	50.4	57.5		63.0	50.8	54.4		59.7	-	57.7	70.7	-	46.8	54.5	44.0	65.7	69.3	63.7
7/5/2016	2:11:00 PM	53.5	58.3	49.9	65.8		73.0	53.8	53.0		59.7	-	69.3	82.7	-	46.5	51.3	44.0	66.3	70.0	63.0
7/5/2016	2:12:00 PM	55.4	62.0	52.5	54.3		59.7	50.5	52.8		59.0	-	57.7	61.4	-	46.5	53.2	43.4	66.3	69.8	62.6
7/5/2016	2:13:00 PM	54.6	61.2	52.4	54.2		57.6	51.5	53.6		57.1	-	57.4	59.4	-	46.8	52.6	44.1	66.2	72.6	63.1
7/5/2016	2:14:00 PM	58.4	75.0	52.5	54.0		58.2	51.4	54.5		57.8	-	57.0	61.3	-	53.9	62.9	46.8	65.7	69.5	62.0
7/5/2016	2:15:00 PM	54.9	60.9	53.1	54.0		59.9	51.1	53.4		60.1	-	57.9	60.2	-	47.1	54.0	44.0	65.4	69.4	62.1
7/5/2016	2:16:00 PM	54.3	65.4	52.2	53.7		56.2	51.5	53.3		58.2	-	57.3	61.3	-	46.0	52.9	43.8	66.2	70.0	62.5
7/5/2016	2:17:00 PM	52.1	61.5	47.6	53.6		57.3	51.0	54.0		57.5	-	58.6	68.6	-	46.0	54.7	44.0	65.5	70.0	63.2
7/5/2016	2:18:00 PM	50.2	58.3	48.0	54.6		58.5	51.8	54.2		56.0	-	57.2	63.0	-	46.4	50.8	44.0	65.8	71.4	62.9
7/5/2016	2:19:00 PM	50.5	53.9	48.4	54.2		56.4	52.2	53.2		55.1	-	58.6	69.1	-	45.6	48.3	43.3	66.8	72.5	63.3
7/5/2016	2:20:00 PM	51.4	60.9	47.3	54.3		59.2	51.7	55.0		62.8	-	58.1	69.2	-	45.2	51.8	43.4	66.5	71.7	63.4
7/5/2016	2:21:00 PM	56.5	72.0	48.3	54.5		59.0	50.1	54.2		57.6	-	58.4	65.1	-	52.3	64.6	43.7	66.4	70.5	62.9
7/5/2016	2:22:00 PM	51.7	59.8	48.3	53.4		58.1	49.1	54.5		61.1	-	58.3	62.9	-	64.4	75.7	45.2	66.1	69.4	61.8
7/5/2016	2:23:00 PM	54.5	72.5	46.4	57.3		64.3	50.8	55.3		60.9	-	57.9	62.4	-	46.7	58.1	44.0	66.1	73.3	62.4
7/5/2016	2:24:00 PM	58.9	77.8	53.3	55.6		63.8	50.7	55.4		64.1	-	57.8	63.1	-	45.7	51.2	43.5	66.4	72.7	62.0
7/5/2016	2:25:00 PM	57.0	70.2	52.9	53.0		59.6	50.1	53.8		58.3	-	58.5	61.3	-	45.7	49.1	43.6	65.6	72.4	61.8
7/5/2016	2:26:00 PM	53.8	58.3	52.6	53.8		57.4	50.1	52.5		55.1	-	58.3	62.2	-	45.4	49.1	43.3	65.8	69.6	62.8
7/5/2016	2:27:00 PM	53.9	58.3	52.1	54.7		62.5	50.5	54.9		66.3	-	57.7	62.9	-	45.3	48.8	43.2	66.2	69.7	63.3
7/5/2016	2:28:00 PM	53.3	61.6	51.7	55.8		63.5	51.6	53.8		57.1	-	57.8	61.3	-	46.3	49.1	43.4	66.5	73.0	64.2
7/5/2016	2:29:00 PM	51.7	56.8	47.2	57.0		65.1	52.8	54.1		58.5	-	57.8	60.8	-	46.0	49.4	44.0	66.0	71.5	62.5
7/5/2016	2:30:00 PM	49.9	61.6	46.6	62.4		73.8	52.9	54.5		60.2	-	58.3	64.9	-	47.0	55.1	44.1	66.4	70.1	64.1
7/5/2016	2:31:00 PM	48.9	51.7	46.3	71.4		80.7	52.9	55.8		59.2	-	56.9	60.2	-	46.4	62.4	43.5	66.7	72.1	64.2
7/5/2016	2:32:00 PM	55.8	64.7	46.9	64.0		69.4	52.9	55.3		58.8	-	57.8	61.0	-	52.8	71.2	43.8	65.8	70.0	62.8
7/5/2016	2:33:00 PM	52.0	59.2	47.6	62.5		67.3	57.3	54.9		60.5	-	58.3	63.3	-	45.8	50.5	43.9	66.0	79.8	62.7
7/5/2016	2:34:00 PM	56.9	69.4	45.5	60.6		63.9	55.4	56.2		60.8	-	57.6	61.9	-	48.2	59.2	43.9	69.1	74.9	64.0
7/5/2016	2:35:00 PM	54.5	64.0	49.1	58.8		62.3	54.5	55.8		60.4	-	57.2	59.2	-	47.0	53.8	44.9	65.2	69.7	63.1
7/5/2016	2:36:00 PM	53.7	55.8	52.5	57

7/5/2016	2:53:00 PM	53.1	56.0	51.9	54.7		61.3	50.8	52.6		58.9	-	59.7	69.2	-	45.5	52.6	43.4	64.9	69.5	61.1
7/5/2016	2:54:00 PM	53.6	57.1	52.1	56.7		64.8	49.5	51.1		58.9	-	57.7	63.2	-	45.7	50.8	43.7	65.4	68.0	62.6
7/5/2016	2:55:00 PM	53.4	55.9	52.3	59.1		66.7	53.3	52.1		59.6	-	57.2	63.0	-	47.3	52.4	44.4	65.0	71.8	62.5
7/5/2016	2:56:00 PM	54.0	57.3	52.0	54.4		61.4	51.4	52.4		58.5	-	57.1	64.7	-	46.1	51.4	43.7	65.0	72.2	62.1
7/5/2016	2:57:00 PM	53.1	55.4	51.7	55.0		60.3	52.2	53.4		59.9	-	57.4	60.9	-	45.3	49.5	43.2	65.8	68.6	63.1
7/5/2016	2:58:00 PM	56.0	65.3	51.8	61.9		67.6	54.3	54.9		59.7	-	57.3	62.7	-	44.7	47.5	42.9	65.5	71.5	62.9
7/5/2016	2:59:00 PM	58.1	74.6	51.8	60.0		68.1	54.7	53.0		57.6	-	57.2	63.4	-	45.5	53.3	43.8	65.5	70.1	62.7
7/5/2016	3:00:00 PM	56.0	61.1	52.6	60.0	56.9	67.2	54.2	54.5	53.0	59.8	-	58.2	68.9	-	46.2	49.2	43.4	65.3	71.4	62.2
7/5/2016	3:01:00 PM	56.2	64.2	52.2	57.5		71.9	53.1	53.9		60.4	-	57.9	64.1	-	44.7	46.5	42.9	66.2	70.9	63.8
7/5/2016	3:02:00 PM	55.7	60.0	53.0	57.0		63.0	53.5	53.1		61.0	-	59.7	67.5	-	45.3	60.1	42.6	64.9	69.6	61.7
7/5/2016	3:03:00 PM	54.3	57.9	53.1	56.8		61.2	54.1	51.1		54.7	-	57.3	61.4	-	45.4	49.1	43.2	66.0	71.3	63.4
7/5/2016	3:04:00 PM	53.4	55.7	51.9	55.1		58.6	52.6	52.6		55.5	-	58.2	60.9	-	44.7	47.7	42.8	65.8	71.7	62.7
7/5/2016	3:05:00 PM	52.8	54.0	51.5	56.9		60.8	53.4	54.8		58.2	-	57.5	60.6	-	45.0	48.6	42.9	65.6	69.7	62.8
7/5/2016	3:06:00 PM	53.9	56.4	52.2	56.9		63.3	53.6	52.8		56.2	-	58.8	63.5	-	45.4	52.8	43.1	65.4	68.5	63.2
7/5/2016	3:07:00 PM	54.0	59.3	52.4	58.4		62.8	52.9	55.0		60.2	-	57.2	66.0	-	44.0	48.1	42.3	65.4	70.7	62.3
7/5/2016	3:08:00 PM	52.8	56.2	51.8	58.5		63.8	51.8	52.5		55.9	-	57.4	62.3	-	44.2	46.2	42.4	65.7	71.8	60.6
7/5/2016	3:09:00 PM	52.8	54.8	51.7	65.6		71.2	54.5	50.9		53.4	-	59.9	69.3	-	46.0	49.1	43.3	66.7	74.4	62.2
7/5/2016	3:10:00 PM	56.1	68.5	52.8	53.1		62.5	49.4	52.6		55.6	-	60.4	75.4	-	45.4	50.9	43.0	65.9	71.0	62.3
7/5/2016	3:11:00 PM	54.6	63.5	52.5	52.4		58.5	49.3	51.6		56.0	-	57.2	61.2	-	44.9	47.6	42.7	65.7	71.7	62.3
7/5/2016	3:12:00 PM	53.4	54.6	52.3	52.2		54.1	49.6	52.8		59.2	-	61.5	68.2	-	44.2	55.0	41.8	66.6	71.7	63.6
7/5/2016	3:13:00 PM	53.7	55.5	52.5	54.5		61.5	50.7	54.4		67.3	-	57.4	64.4	-	43.7	45.8	42.2	66.1	71.1	62.6
7/5/2016	3:14:00 PM	54.0	58.9	52.3	53.9		59.1	50.3	52.7		58.8	-	56.9	63.8	-	45.4	48.8	42.8	66.1	71.3	62.4
7/5/2016	3:15:00 PM	68.4	81.0	53.2	60.2		65.9	54.2	52.6		56.9	-	56.4	61.5	-	44.7	53.5	43.0	66.3	71.5	62.9
7/5/2016	3:16:00 PM	53.6	54.8	52.3	56.5		62.0	50.3	52.2		60.2	-	56.8	59.8	-	44.3	48.4	42.4	65.3	69.6	62.6
7/5/2016	3:17:00 PM	53.5	54.6	52.4	52.0		57.5	48.9	53.6		56.9	-	57.2	60.5	-	44.6	47.2	42.2	65.1	70.2	62.3
7/5/2016	3:18:00 PM	53.8	55.4	52.5	52.4		55.8	50.5	52.4		57.5	-	56.9	62.1	-	44.4	53.0	42.3	66.0	71.0	63.2
7/5/2016	3:19:00 PM	54.8	58.4	53.1	52.1		55.2	49.9	51.3		57.4	-	56.5	60.4	-	44.3	47.1	42.6	66.2	69.2	63.5
7/5/2016	3:20:00 PM	54.2	63.9	53.1	53.2		64.3	50.2	54.5		59.0	-	57.1	59.8	-	44.1	48.3	42.4	65.7	69.3	63.1
7/5/2016	3:21:00 PM	54.6	56.9	53.1	54.2		63.9	50.1	54.9		59.9	-	57.3	60.5	-	44.4	47.8	42.0	65.8	70.5	62.8
7/5/2016	3:22:00 PM	54.2	57.6	52.6	52.0		54.8	50.2	55.0		58.4	-	56.7	63.3	-	44.5	46.9	42.7	66.9	75.6	63.4
7/5/2016	3:23:00 PM	57.0	65.6	53.6	53.2		56.9	50.2	53.7		57.7	-	55.3	59.3	-	46.1	51.2	43.1	65.1	68.3	63.1
7/5/2016	3:24:00 PM	55.1	65.3	53.4	54.7		62.1	50.4	52.7		57.6	-	56.8	61.9	-	49.0	57.7	44.5	65.5	71.5	63.0
7/5/2016	3:25:00 PM	54.4	62.6	53.1	52.7		59.6	49.3	53.8		58.3	-	58.2	65.9	-	44.9	48.4	42.8	65.3	68.7	63.2
7/5/2016	3:26:00 PM	54.5	58.0	53.0	52.0		56.1	50.0	52.6		55.5	-	56.8	62.1	-	44.5	47.6	42.7	65.1	71.6	63.0
7/5/2016	3:27:00 PM	53.7	55.3	52.4	53.6		60.2	49.6	54.1		60.6	-	58.8	71.3	-	44.6	52.0	42.3	65.4	75.2	62.1
7/5/2016	3:28:00 PM	54.0	58.4	52.7	55.5		63.7	49.9	54.0		58.3	-	56.7	60.5	-	45.3	54.5	42.2	65.4	71.7	63.1
7/5/2016	3:29:00 PM	54.3	60.0	52.8	53.9		61.2	50.1	53.0		57.1	-	56.7	61.5	-	46.7	51.9	43.1	65.8	68.6	62.2
7/5/2016	3:30:00 PM	54.0	57.4	52.9	50.6		52.6	49.1	50.8		54.0	-	56.6	66.2	-	45.2	54.4	43.6	65.5	71.3	62.2
7/5/2016	3:31:00 PM	54.0	56.3	52.7	51.1		53.9	47.9	50.6		53.2	-	57.2	66.1	-	46.3	54.6	43.2	66.1	70.4	62.7
7/5/2016	3:32:00 PM	53.3	54.6	52.3	51.5		54.4	49.6	50.3		55.5	-	56.4	62.0	-	45.7	56.3	43.3	65.5	71.6	62.3
7/5/2016	3:33:00 PM	53.5	55.8	52.6	52.9		58.3	49.2	53.2		61.0	-	57.1	60.0	-	45.2	50.4	42.8	66.0	74.0	62.5
7/5/2016	3:34:00 PM	53.3	58.3	52.4	56.7		61.4	54.3	51.1		54.2	-	56.8	65.0	-	44.7	51.2	42.7	66.9	72.5	64.0
7/5/2016	3:35:00 PM	55.3	70.2	52.4	61.7		66.0	57.3	49.6		54.3	-	57.8	61.4	-	44.3	54.5	42.2	65.5	70.1	62.4
7/5/2016	3:36:00 PM	53.5	54.4	52.2	59.4		64.4	54.2	51.5		62.4	-	55.6	59.4	-	44.5	55.0	42.3	65.4	70.8	62.5
7/5/2016	3:37:00 PM	53.5	57.4	52.5	55.7		61.6	50.7	50.5		54.6	-	56.0	58.9	-	43.8	47.8	42.1	65.6	71.1	62.7
7/5/2016	3:38:00 PM	54.3	58.7	52.8	54.0		61.3	49.2	51.7		57.2	-	56.7	60.4	-	44.2	47.3	42.2	65.4	72.1	60.7
7/5/2016	3:39:00 PM	54.0	57.4	52.6	51.8		57.9	48.5	51.3		58.0	-	56.1	61.8	-	44.9	54.2	42.8	66.4	69.3	64.0
7/5/2016	3:40:00 PM	53.3	54.3	52.4	52.3		56.2	48.9	54.4		58.5	-	55.7	58.5	-	44.0	46.2	42.3	65.4	71.0	62.8
7/5/2016	3:41:00 PM	53.9	58.0	52.6	54.6		59.0	50.8	53.4		57.2	-	56.0	58.8	-	44.6	52.8	42.8	66.6	79.6	61.8
7/5/2016	3:42:00 PM	54.2	57.6	52.4	52.4		55.6	49.8	50.2		53.1	-	56.3	59.5	-	44.4	51.6	42.0	65.5	69.9	63.2
7/5/2016	3:43:00 PM	53.9	61.7	51.9	52.9		56.0	50.5	52.4		56.3	-	56.9	60.4	-	44.1	47.5	42.2	65.7	72.0	62.9
7/5/2016	3:44:00 PM	56.7	64.9	52.9	63.7		73.1	52.6	52.5		55.8	-	57.7	62.1	-	44.2	48.5	42.1	64.7	72.0	62.4
7/5/2016	3:45:00 PM	53.2	54.7	51.8	59.8		69.7	51.8	59.1		66.7	-	56.3	59.4	-	44.3	50.9	42.2	65.6	70.5	63.3
7/5/2016	3:46:00 PM	53.2	55.2	51.9	60.7		65.1	54.1	53.8		62.5	-	55.9	58.8	-	44.4	47.6	42.0	66.2	74.4	62.2
7/5/2016	3:47:00 PM	52.7	56.4	51.4	58.9		63.9	54.2	52.6		58.4	-	55.7	60.5	-	44.7	53.2	42.9	66.0	75.0	63.8
7/5/2016	3:48:00 PM	54.4	61.0	52.1	57.9		61.2	54.1	53.0		56.5	-	56.0	58.5	-	44.1	46.1	42.4	65.7	74.2	62.7
7/5/2016	3:49:00 PM	53.6	55.7	52.6	56.4		60.5	52.5	53.0		58.3	-	57.2	64.1	-	44.1	52.6	42.0	65.1	69.7	62.0
7/5/2016	3:50:00 PM	59.9	81.0	52.6	56.5		61.2	52.5	52.6		54.6	-	57.5	67.5	-	43.9	46.7	41.2	65.0	68.4	62.7
7/5/2016	3:51:00 PM	55.7	63.1	53.0	56.6		62.4	52.8	54.1		58.2	-	58.6	65.7	-	44.5	51.1	42.1	64.9	68.0	62.5
7/5/2016	3:52:00 PM	54.2	57.4	52.7	53.9		60.2	50.3	52.9		56.8	-	56.9	61.6	-	45.4	49.9	42.4	65.1	68.9	62.5
7/5/2016	3:53:00 PM	54.0	66.3	52.4	57.4		64.5	51.5	51.0		55.0	-	57.5	60.3	-	46.1	51.0	42.9	65.6	69.8	62.8
7/5/2016	3:54:00 PM	53.8	59.0	52.3	57.4		65.4	50.1	49.7		53.5	-	58.8	71.3	-	44.7	55.5	42.3	64.7	70.1	62.1
7/5/2016	3:55:00 PM	53.4	57.9	52.3	54.3		60.9	49.8	49.8		54.6	-	55.8	61.9	-	44.3	46.9	41.9	64.8	69.0	63.1
7/5/2016	3:56:00 PM	58.6	77.3	52.7	55.3		62.0	50.4	53.2		58.3	-	56.8	60.3	-	45.3	54.1	42.1	65.9	69.5	63.6
7/5/2016	3:57:00 PM	56.9	66.5	52.5	52.9		58.0	49.5	51.5		55.3	-	56.7	60.9	-	44.0	47.5	42.2	65.4	71.4	62.9
7/5/2016	3:58:00 PM	56.9	66.4	54.2	54.0		59.2	50.1	52.8		64.9	-	57.6	67.0	-	43.7	45.9	41.9	67.5	82.5	62.6
7/5/2016	3:59:00 PM	55.0	59.9	52.9	56.3		62.6	51.7	51.5		57.2	-	57.9	63.7	-	44.4	46.8	42.2	67.3	73.2	63.6
7/5/2016	4:00:00 PM	54.0	56.9	52.9	55.1	56.9	58.3	50.7	53.1	54.3	68.2	-	55.5	59.1	-	44.9	47.9	42.9	67.6	77.5	63.5
7/5/2016	4:01:00 PM	53.4	57.3	51.5	55.1		60.9	51.9	52.3		59.7	-	57.6	65.6	-	44.4	53.5	42.8	66.9	77.3	62.5
7/5/2016	4:02:00 PM	53.8	55.6	52.8	55.5		63.5	51.4	50.9		57.9	-	57.5	65.5	-	45.1	53.0	42.6	64.8	67.5	62.6
7/5/2016	4:03:00 PM	53.1	54.9	51.9	53.8		59.1	51.1	54.0		58.2	-	56.7	59.7	-	44.7	52.5	42.4	65.4	72.8	62.5
7/5/2016	4:04:00 PM	53.3	56.5	51.8	53.9		59.2	51.2	54.1		68.8	-	57.7	60.4	-	44.5	59.4	42.0	64.8	69.8	62.6
7/5/2016	4:05:00 PM	54.2	55.3	53.0	58.4		65.5	54.0	56.4		68.7	-	57.2	62.9	-	44.0	54.7	42.1	65.7	70.7	62.8
7/5/2016	4:06:00 PM	53.8	55.0	52.6	54.9		58.2	52.0	57.7		76.3	-	57.4	66.4	-	44.4	57.1	42.2	65.8	70.1	63.6
7/5/2016	4:07:00 PM	53.5	54.9	52.1	54.4		57.9	51.5	57.9		73.5	-	57.6	59.9	-	45.4	58.1	42.1	66.0	72.2	63.7
7/5/2016	4:08:00 PM	55.6	68.7	53.1	53.2		56.2	51.0	61.3		78.4	-	58.8	69.2	-	44.0	51.3	42.0	66.2	71.6	63.2
7/5/2016	4:09:00 PM	55.1	58.5	53.9	51.9		55.6	49.6	60.4		73.5	-	57.2	60.2	-	43.5	46.2	41.8	65.8	70.4	63.3
7/5/2016	4:10:00 PM	54.6	56.7	53.0	51.8		54.6	49.9	53.8		59.6	-	57.5	60.0	-	44.8	48.5	42.1	66.0	69.1	63.7
7/5/2016	4:11:00 PM	54.4	57.9	52.9	54.6		64.3	49.8	53.2		62.1	-	58.2	67.7	-	44.0	48.5	41.9	65.5	69.5	63.2
7/5/2016	4:12:00 PM	54.1	60.0	53.0	55.4		60.6	51.0	50.8		53.8	-	58.4	64.4	-	44.0	53.2	42.1	66.1	74.5	63.7
7/5/2016	4:13:00 PM	53.9	56.1	52.9	56.1		63.9	50.7	52.6		55.8	-	55.9	60.0	-	42.8	45.4	41.1	66.2	72.8	63.5
7/5/2016	4:14:00 PM	54.1	57.5	52.9	55.8		64.0	50.2	52.7		56.0	-	56.1	59.1	-	44.1	53.0	41.8	66.4	71.1	63.9
7/5/2016	4:15:00 PM	67.7	77.3	54.1	53.7		58.0	50.4	52.3		60.5	-	56.4	60.0	-	44.1	56.0	42.2	66.0	69.8	63.8
7/5/2016	4:16:00 PM	68.4	71.3	66.9	56.8		64.6	53.3	51.7		55.5	-	55.3	58.3	-	43.4	47.0	41.6	67.2	72.0	63.9
7/5/2016	4:17:00 PM	64.6	76.3	53.1	57.0		67.8	50.7	49.6		52.3	-	55.9	61.8	-	43.3	47.8	41.2	66.9	71.6	64.3
7/5/2016	4:18:00 PM	54.9	58.8	53.4	56.8		65.0	50.1	51.7		58.1	-	56.1	62.3	-	42.9	46.3	41.0	66.7	72.2	64.2
7/5/2016	4:19:00 PM	55.7	61.0	53.1	59.3		67.4	53.4	50.9		53.8	-	55.7	58.5	-	43.3	46.1	40.7	66.1	70.7	63.6
7/5/2016	4:20:00 PM	55.6	60.9	53.1	59.0		63.6	52.2	53.0		57.0	-	55.9	59.8	-	43.4	48.7	41.3	65.8	74.8	63.4
7/5/2016	4:21:00 PM	56.1	72.9	52.5	58.7		66.6	51.3	57.6		70.5	-	56.0	66.5	-	44.6	52.3	41.5	66.0	72.3	63.2
7/5/2016	4:22:00 PM	53.3	55.1	52.3	56.4		65.5	50.7	53.6		62.1	-	59.2	72.8	-	44.6	46.9	42.3	66.6	77.5	63.2
7/5/2016	4:23:00 PM	55.3	70.8	53.0	56.2		60.4	52.0	53.0		57.1	-	56.7	64.4	-	43.9	46.7	42.1	66.6	76.1	63.8
7/5/2016	4:24:00 PM	54.0	55.3	52.9	59.8		64.3	55.3	50.4		54.1	-	56.1	60.8	-	43.5	54.2	41.2	66.1	71.5	63.0
7/5/2016	4:25:00 PM	54.5	57.5	53.0	57.7		63.9	52.5	51.5		54.2	-	58.0	68.2	-	43.1	45.5	41.0	65.4	69.5	62.6
7/5/2016	4:26:00 PM	53.6	56.0	52.4	60.5		66.9	54.3	51.5		55.1	-	55.7	63.1	-	43.2	45.5	41.2	65.7	71.4	62.8
7/5/2016	4:27:00 PM	54.3	63.4	52.4	59.4		70.0	52.9	50.3		55.6	-	56.6	60.1	-	45.4	49.8	42.3	65.4	71.9	63.5
7/5/2016	4:28:00 PM	54.2	56.6	52.6	56.9		63.7	52.3	52.6		56.9	-	57.9	67.3	-	43.7	46.2	41.9	65.9	72.7	63.2
7/5/2016	4:29:00 PM	53.6	55.9	52.6	56.8		65.7	52.1	52.2		56.8	-	56.5	63.4	-	43.4	49.4	41.1	65.6	73.2	63.1
7/5/2016	4:30:00 PM	53.1	54.8	51.5	53.4		62.5	49.6	52.2		55.4	-	56.9	63.8	-	43.0	47.1	41.3	66.1	71.5	63.0
7/5/2016	4:31:00 PM	53.6	55.1	52.5	58.2		66.6	53.2	52.6		57.7	-	57.2	66.0	-	44.9	48.6	42.3	65.3	68.9	62.8
7/5/2016	4:32:00 PM	53.8	55.7	52.8	55.8		65.6	51.3	51.8		56.2	-	56.5	61.4	-	44.3	49.2	42.1	66.1	73.7	62.8
7/5/2016	4:33:00 PM	53.7	69.3	51.8	57.5		68.5	50.7	51.6		55.8	-	59.7	70.7	-	44.1	48.2	41.4	65.7	72.4	62.7
7/5/2016	4:34:00 PM	53.9	63.3	52.4	57.3		63.1	53.6	53.8		62.7	-	59.2	70.2	-	43.2	45.8	41.3	65.9	70.9	63.0
7/5/2016	4:35:00 PM	54.0	65.0	52.6	53.9		60.8	49.6	52.4		55.6	-	57.6	65.4	-	43.5	49.6	41.3	65.6	72.9	63.1
7/5/2016	4:36:00 PM	55.3	66.8	52.5	52.7		58.0	49.7	52.5		58.5	-	58.2	62.7	-	44.0	52.9	42.1	66.1	71.2	63.6
7/5/2016	4:37:00 PM	53.3	57.3	52.3	55.1		58.8	51.6	50.2		54.6	-	57.1	60.5	-	44.2	48.0	41.9	65.3	72.3	62.5
7/5/2016	4:38:00 PM	55.6	73.7	52.4	59.9		65.9	55.5	52.5		59.7	-	57.6	61.3	-	45.1	47.8	42.6	64.7	70.5	61.8
7/5/2016	4:39:00 PM	54.1	61.6	52.8	60.9		71.0	54.5	51.5		56.1	-	57.0	60.6	-	44.7	47.3	42.7	65.7	73.2	63.5
7/5/2016	4:40:00 PM	53.7	56.9	52.3	63.4		71.1	56.7	51.5		56.3	-	60.5	76.7	-	44.2	48.0	42.2	65.4	70.1	63.1
7/5/2016	4:41:00 PM	54.6	63.6	52.7	59.4		64.9	53.9	51.1		58.6	-	58.0	64.4	-	43.9	49.8	41.5	66.0	74.4	63.4
7/5/2016	4:42:00 PM	53.9	55.9	52.0	54.9		58.9	50.2	50.8		55.5	-	57.2	62.3	-	45.9	66.3	41.3	65.1	71.4	62.9
7/5/2016	4:43:00 PM	53.6	57.0	52.7	56.6		65.3	50.0	50.2		54.2	-	57.6	63.2	-	43.4	52.4	40.9	66.5	71.4	62.9
7/5/2016	4:44:00 PM	53.7	55.4	52.7	55.6		61.2	51.5	51.7		55.0	-	57.6	64.3	-	42.9	44.6	41.3	65.6	68.3	63.2
7/5/2016	4:45:00 PM	54.0	55.8	52.8	64.0		71.5	56.1	52.7		59.1	-	57.8	61.1	-	43.6	48.7	42.0	65.6	69.1	62.6
7/5/2016	4:46:00 PM	54.0	57.1	52.9	54.8		66.2	50.5	57.4		64.9	-	57.7	63.0	-	44.1	50.7	40.9	65.7	72.3	63.2
7/5/2016	4:47:00 PM	53.3	56.4	51.9	55.7		63.8	49.8	51.8		56.1	-	57.7	61.2	-	43.8	46.0	42.2	65.1	71.1	62.9
7/5/2016	4:48:00 PM	54.4	58.8	53.0	53.8		60.5	49.0	52.1		55.7	-	56.8	59.6	-	43.5	46.7	41.6	64.9	72.1	62.6
7/5/2016	4:49:00 PM	54.0	61.2	52.5	52.3		59.7	48.6	53.3		60.1	-	56.5	59.2	-	44.4	57.9	41.3	65.1	72.9	62.5
7/5/2016	4:50:00 PM	53.8	59.1	52.7	51.7		55.3	49.1	51.2		56.2	-	59.3	67.0	-	43.3	48.2	41.2	65.6	70.2	63.3
7/5/2016	4:51:00 PM	53.3	54.7	52.3	52.0		55.3	49.6	53.5		60.0	-	57.5	65.4	-	42.9	46.7	41.3	65.1	69.5	61.0
7/5/2016	4:52:00 PM	53.8	57.0	52.6	55.7		60.7	50.8	50.7		53.9	-	57.1	63.6	-	42.8	45.3	41.1	65.2	69.7	62.9
7/5/2016	4:53:00 PM	53.9	55.0	52.8	52.7		58.7	49.4	51.9		60.2	-	62.8	77.0	-	42.6	46.0	40.6	65.1	70.1	62.3
7/5/2016	4:54:00 PM	58.9	68.1	52.4	50.3		52.6	48.5	50.1		53.0	-	57.0	67.6	-	42.8	44.7	40.6	65.4	72.3	63.2
7/5/2016	4:55:00 PM	53.5	61.1	51.7	50.8		56.8	48.4	50.3		52.6	-	57.2	65.5	-	43.2	45.1	41.3	65.4	69.9	63.1
7/5/2016	4:56:00 PM	54.0	58.9	52.7	52.5		57.8	49.4	51.0		53.7	-	56.2	59.0	-	42.8	52.4	40.8	65.0	70.8	62.8
7/5/2016	4:57:00 PM	53.2	54.7	52.4	57.5		68.1	50.1	51.4		55.9	-	55.9	61.0	-	44.0	49.0	41.4	64.5	67.6	62.1
7/5/2016	4:58:00 PM	53.6	56.7	52.3	51.4		56.1	49.3	63.1		72.8	-	57.8	66.9	-	46.2	53.0	42.0	66.0	70.6	63.4
7/5/2016	4:59:00 PM	54.2	60.5	52.4	52.6		61.5	49.3	58.6		73.2	-	65.1	87.8	-	43.3	45.4	41.3	66.1	75.3	62.3
7/5/2016	5:00:00 PM	58.8	71.4	52.5	56.8	57.1	63.9	51.5	54.1	53.4	69.3	-	57.8	64.6	-	42.2	45.5	40.5	65.3	70.5	61.3
7/5/2016	5:01:00 PM	59.1	73.5	52.9	58.1		64.3	50.6	59.9		75.4	-	57.5	61.8	-	42.5	46.0	40.5	65.8	72.4	62.6
7/5/2016	5:02:00 PM	53.8	56.3

7/5/2016	5:19:00 PM	61.4	70.0	52.8	52.6		56.7	49.3	50.4		56.8	-	56.5	62.4	-	42.4	48.8	40.4	66.0	73.4	63.0
7/5/2016	5:20:00 PM	54.6	71.0	51.7	54.9		66.0	49.8	52.1		59.3	-	57.1	60.9	-	42.9	48.9	40.4	65.7	72.2	62.2
7/5/2016	5:21:00 PM	52.7	56.9	51.4	58.8		67.5	50.8	50.7		56.7	-	56.8	62.0	-	43.4	49.3	41.0	65.5	72.6	63.4
7/5/2016	5:22:00 PM	53.7	57.3	52.8	52.0		57.6	50.0	49.9		56.0	-	58.3	65.8	-	42.6	45.4	40.8	65.0	69.3	62.3
7/5/2016	5:23:00 PM	53.1	55.2	51.4	53.2		57.9	50.4	52.1		57.2	-	56.8	60.3	-	44.7	48.6	40.9	65.7	72.8	62.7
7/5/2016	5:24:00 PM	52.8	54.5	51.8	59.6		67.7	49.1	49.3		54.7	-	56.5	59.1	-	42.4	44.8	40.6	65.9	68.6	63.8
7/5/2016	5:25:00 PM	53.6	57.0	51.9	53.4		61.1	49.5	48.4		55.3	-	56.2	59.6	-	42.7	44.9	41.0	65.1	68.0	62.4
7/5/2016	5:26:00 PM	55.8	62.1	51.6	55.7		65.8	49.2	52.4		56.4	-	56.3	59.2	-	42.3	49.8	40.5	65.9	70.5	62.6
7/5/2016	5:27:00 PM	52.8	56.1	51.7	60.8		72.8	51.0	54.5		68.8	-	57.2	61.0	-	42.9	47.0	40.2	65.6	69.8	62.5
7/5/2016	5:28:00 PM	54.9	58.7	52.6	64.0		74.3	49.8	53.3		60.6	-	66.7	74.0	-	42.0	44.0	40.5	65.6	69.7	62.6
7/5/2016	5:29:00 PM	53.9	58.7	52.3	53.9		60.2	49.0	53.3		58.0	-	66.6	71.0	-	42.6	46.7	40.5	65.7	69.9	62.2
7/5/2016	5:30:00 PM	53.9	60.6	52.1	49.6		54.4	47.8	53.9		60.2	-	65.9	78.5	-	45.3	62.2	40.8	66.4	72.0	63.4
7/5/2016	5:31:00 PM	53.6	58.9	51.7	51.3		58.9	48.9	52.6		55.4	-	56.2	58.6	-	49.5	55.8	41.6	65.6	73.6	61.6
7/5/2016	5:32:00 PM	53.9	60.0	51.9	52.9		59.2	48.7	50.7		53.8	-	56.8	59.4	-	44.5	50.6	40.5	66.7	70.6	64.0
7/5/2016	5:33:00 PM	54.1	65.2	51.7	51.9		56.9	49.9	52.6		56.5	-	56.5	59.8	-	43.6	52.6	40.7	66.0	72.6	62.3
7/5/2016	5:34:00 PM	52.7	54.0	51.7	52.2		55.6	50.0	50.7		57.7	-	56.9	59.6	-	42.3	47.1	40.6	65.7	72.9	62.4
7/5/2016	5:35:00 PM	52.9	58.3	51.5	53.3		57.8	50.2	51.7		58.8	-	55.9	58.4	-	42.5	48.1	40.8	65.5	73.4	62.6
7/5/2016	5:36:00 PM	53.7	57.7	52.4	61.2		66.2	52.0	50.3		53.7	-	56.1	59.5	-	43.4	58.3	41.0	65.9	73.2	62.5
7/5/2016	5:37:00 PM	53.6	57.9	52.1	60.3		65.8	54.8	50.6		56.7	-	57.4	62.1	-	43.0	47.7	41.1	64.9	71.5	61.8
7/5/2016	5:38:00 PM	54.0	56.7	52.0	63.2		67.2	55.7	49.3		54.3	-	56.1	58.5	-	42.5	46.0	40.4	65.5	72.0	62.2
7/5/2016	5:39:00 PM	54.1	55.6	52.8	55.9		67.1	52.0	54.4		67.8	-	56.3	60.4	-	43.2	54.2	40.8	65.7	68.7	63.4
7/5/2016	5:40:00 PM	52.9	55.8	51.5	60.0		73.4	53.2	51.6		59.2	-	57.3	59.4	-	43.1	53.5	41.0	65.6	70.3	62.4
7/5/2016	5:41:00 PM	52.8	54.4	51.3	58.1		68.4	52.4	53.6		65.4	-	56.9	59.1	-	42.9	46.4	41.1	65.7	69.3	63.2
7/5/2016	5:42:00 PM	53.9	55.2	52.9	54.5		58.3	51.9	52.5		64.6	-	56.8	60.1	-	45.5	51.6	41.3	65.2	70.8	63.1
7/5/2016	5:43:00 PM	53.0	54.6	51.4	53.1		55.7	50.8	57.3		70.5	-	56.6	58.8	-	42.8	48.1	40.7	66.0	70.6	63.0
7/5/2016	5:44:00 PM	52.7	55.6	51.5	52.8		59.4	49.8	58.1		74.1	-	56.3	59.7	-	42.8	46.4	40.7	65.1	68.4	62.2
7/5/2016	5:45:00 PM	53.2	57.0	51.8	61.7		72.6	50.6	52.1		63.3	-	60.1	73.8	-	43.4	58.3	40.8	65.6	69.8	62.2
7/5/2016	5:46:00 PM	52.4	56.0	51.4	53.9		58.1	50.4	54.5		74.2	-	57.0	73.3	-	45.5	58.6	41.7	65.2	71.8	62.3
7/5/2016	5:47:00 PM	54.0	62.9	51.7	52.0		55.9	49.2	51.4		64.1	-	57.1	66.1	-	42.8	45.8	40.9	65.2	70.9	62.6
7/5/2016	5:48:00 PM	52.2	54.7	51.3	52.3		57.2	49.2	48.4		52.3	-	59.7	71.8	-	41.8	51.3	39.8	65.7	68.5	63.6
7/5/2016	5:49:00 PM	54.2	56.9	51.6	50.5		53.8	48.5	50.3		57.1	-	58.1	70.3	-	42.2	49.6	40.2	64.6	68.5	62.2
7/5/2016	5:50:00 PM	53.4	54.8	52.4	50.7		54.3	48.3	53.2		64.1	-	56.5	64.6	-	44.3	60.5	40.6	65.5	70.0	62.2
7/5/2016	5:51:00 PM	53.5	54.5	52.6	52.6		57.7	48.8	55.6		68.6	-	56.8	59.6	-	42.3	46.2	40.2	65.6	68.8	62.7
7/5/2016	5:52:00 PM	53.8	55.6	52.9	60.6		68.4	52.8	55.3		66.2	-	56.3	60.1	-	42.1	52.2	39.9	66.3	70.7	63.1
7/5/2016	5:53:00 PM	53.1	55.7	51.4	58.5		69.0	50.1	60.0		69.9	-	55.9	59.2	-	45.5	58.8	40.5	65.5	69.5	62.2
7/5/2016	5:54:00 PM	53.0	67.5	51.3	55.0		62.0	49.4	53.4		63.0	-	56.6	59.8	-	42.4	44.9	40.5	65.4	69.3	62.5
7/5/2016	5:55:00 PM	53.4	58.1	51.9	53.9		60.6	49.6	55.0		63.2	-	56.2	60.0	-	42.6	47.6	40.1	66.5	74.6	62.8
7/5/2016	5:56:00 PM	53.2	66.5	51.6	55.0		63.0	49.5	50.3		56.6	-	56.4	61.6	-	41.9	43.6	40.2	65.5	68.8	61.9
7/5/2016	5:57:00 PM	55.1	63.3	52.1	58.5		68.0	50.8	52.1		56.1	-	57.4	60.3	-	42.7	50.8	40.7	64.8	69.9	62.0
7/5/2016	5:58:00 PM	62.5	72.4	52.5	51.8		59.4	48.5	51.5		63.4	-	57.4	65.3	-	42.5	44.6	40.6	65.4	70.2	62.4
7/5/2016	5:59:00 PM	54.1	61.0	52.1	53.9		62.9	49.1	50.7		60.8	-	57.4	62.0	-	41.7	43.8	39.8	65.6	69.2	63.2
7/5/2016	6:00:00 PM	54.7	63.1	52.1	50.0	57.9	54.7	48.1	53.8	54.9	69.3	-	57.5	66.4	-	41.5	44.0	39.7	65.3	70.6	62.4
7/5/2016	6:01:00 PM	53.0	55.1	51.9	56.2		69.8	48.3	48.1		60.5	-	56.2	61.3	-	41.7	51.5	39.9	65.6	71.4	62.8
7/5/2016	6:02:00 PM	52.7	55.2	51.6	51.6		55.8	49.2	49.5		54.4	-	57.8	63.6	-	42.9	47.5	40.0	65.1	68.2	62.0
7/5/2016	6:03:00 PM	52.5	56.6	51.4	54.3		62.4	48.8	49.8		54.3	-	59.7	71.3	-	44.0	50.3	40.8	65.5	69.4	62.9
7/5/2016	6:04:00 PM	53.1	55.9	51.6	60.4		68.1	51.0	49.9		58.8	-	70.5	82.7	-	42.3	45.7	40.6	65.5	69.6	62.5
7/5/2016	6:05:00 PM	53.6	57.6	51.7	56.3		68.3	49.2	49.5		53.2	-	59.2	69.1	-	42.2	46.4	40.4	66.0	71.1	62.5
7/5/2016	6:06:00 PM	52.5	54.9	51.6	53.1		57.2	49.5	47.3		50.9	-	57.7	61.4	-	43.1	50.5	40.5	65.5	72.6	60.8
7/5/2016	6:07:00 PM	55.1	74.4	51.4	60.8		70.1	52.6	49.8		59.2	-	58.9	71.7	-	41.8	44.4	40.1	66.2	73.1	63.3
7/5/2016	6:08:00 PM	52.7	56.1	51.3	60.7		69.6	53.6	48.6		62.2	-	58.3	67.2	-	42.2	44.1	40.6	65.4	69.2	62.8
7/5/2016	6:09:00 PM	53.7	61.3	51.9	57.6		63.7	51.1	50.8		56.3	-	56.6	59.1	-	42.9	45.5	40.8	66.0	69.2	63.7
7/5/2016	6:10:00 PM	54.2	62.5	51.8	53.6		61.4	49.4	48.1		53.0	-	56.1	58.4	-	42.1	44.1	40.2	65.9	71.3	62.8
7/5/2016	6:11:00 PM	52.9	55.2	51.7	50.9		52.6	48.6	47.7		53.1	-	57.3	61.4	-	42.7	47.6	40.7	65.7	69.8	61.1
7/5/2016	6:12:00 PM	53.1	56.8	51.7	51.0		54.9	48.6	48.9		55.1	-	59.3	71.7	-	42.4	44.5	40.5	66.3	69.8	63.6
7/5/2016	6:13:00 PM	53.0	64.5	51.7	51.9		57.6	48.4	48.2		57.7	-	56.7	60.2	-	44.2	47.1	41.2	65.7	70.5	63.1
7/5/2016	6:14:00 PM	52.5	54.0	51.6	50.3		52.9	47.7	47.6		49.7	-	57.0	60.5	-	42.9	52.4	41.0	66.3	72.3	62.7
7/5/2016	6:15:00 PM	52.6	55.0	51.5	56.3		63.8	48.0	48.9		55.8	-	57.3	61.5	-	43.5	47.9	40.8	66.1	72.8	63.1
7/5/2016	6:16:00 PM	53.0	55.3	51.4	51.6		58.2	48.0	49.1		51.5	-	58.1	62.4	-	42.3	45.3	40.5	65.6	69.8	62.1
7/5/2016	6:17:00 PM	65.6	80.0	52.1	53.2		59.7	48.1	49.8		52.6	-	57.1	66.2	-	42.6	49.7	40.9	65.4	69.0	62.8
7/5/2016	6:18:00 PM	54.1	69.8	52.1	50.1		55.9	47.6	51.7		59.2	-	58.2	62.2	-	42.2	46.9	39.7	65.6	69.1	62.4
7/5/2016	6:19:00 PM	57.3	64.8	51.9	55.0		63.0	49.6	49.0		57.1	-	57.7	61.6	-	42.2	46.0	40.0	75.4	94.0	62.1
7/5/2016	6:20:00 PM	54.0	66.0	51.7	59.1		67.0	50.0	48.9		61.3	-	57.0	59.9	-	42.8	50.3	40.9	72.1	88.0	61.6
7/5/2016	6:21:00 PM	58.7	71.4	52.2	60.6		68.3	52.0	53.3		64.9	-	56.7	60.2	-	42.8	51.0	40.5	66.1	70.6	63.0
7/5/2016	6:22:00 PM	54.0	59.1	52.1	56.1		65.8	51.6	51.7		64.9	-	57.5	66.1	-	42.4	44.5	40.5	66.2	71.0	62.3
7/5/2016	6:23:00 PM	53.7	56.7	52.4	53.6		61.4	50.8	50.8		63.3	-	57.3	62.0	-	42.3	46.9	40.1	66.0	69.4	63.0
7/5/2016	6:24:00 PM	54.5	57.8	52.4	55.1		61.8	50.4	56.2		70.9	-	57.0	59.6	-	42.9	51.4	40.7	66.8	73.2	62.8
7/5/2016	6:25:00 PM	57.0	65.0	52.3	59.8		68.7	51.6	61.0		78.0	-	56.1	58.3	-	43.0	45.9	41.1	67.3	77.0	62.8
7/5/2016	6:26:00 PM	55.7	67.4	52.3	54.9		60.9	50.6	52.8		62.9	-	58.3	67.0	-	42.4	44.8	40.6	66.9	73.2	63.5
7/5/2016	6:27:00 PM	65.8	75.7	52.4	59.8		70.6	49.1	56.0		63.6	-	56.9	63.9	-	42.7	49.2	40.9	66.4	71.0	63.1
7/5/2016	6:28:00 PM	53.2	55.1	52.2	54.9		66.7	51.2	50.9		58.4	-	56.9	61.7	-	43.5	49.8	41.4	65.7	69.9	61.9
7/5/2016	6:29:00 PM	54.1	58.8	52.0	53.4		61.1	49.8	51.4		61.9	-	56.2	61.3	-	50.5	57.4	42.2	66.2	70.0	62.8
7/5/2016	6:30:00 PM	53.3	55.9	51.9	49.9		53.5	47.3	53.3		63.8	-	57.2	61.0	-	45.9	51.5	41.5	65.5	70.4	61.1
7/5/2016	6:31:00 PM	53.9	60.4	51.8	51.8		58.3	48.7	54.7		64.3	-	57.7	60.5	-	42.0	44.5	39.7	66.3	72.9	61.0
7/5/2016	6:32:00 PM	56.6	64.6	52.1	52.0		56.9	48.5	52.0		62.0	-	55.5	61.6	-	42.4	45.8	40.2	66.3	71.0	61.4
7/5/2016	6:33:00 PM	52.7	54.0	51.6	62.6		73.3	51.1	51.5		59.8	-	56.2	60.2	-	42.5	44.7	40.5	65.5	69.8	62.3
7/5/2016	6:34:00 PM	53.0	57.9	51.5	55.9		63.4	50.5	50.7		56.1	-	56.2	61.8	-	44.7	49.1	41.2	68.0	75.0	63.8
7/5/2016	6:35:00 PM	54.4	65.0	51.4	51.1		53.6	48.6	48.5		53.3	-	56.0	58.1	-	53.5	62.5	44.6	65.5	69.6	62.2
7/5/2016	6:36:00 PM	52.4	55.6	51.4	54.4		63.2	49.9	47.6		51.4	-	57.2	59.8	-	66.3	74.7	49.2	66.0	69.8	61.2
7/5/2016	6:37:00 PM	54.5	61.7	51.4	53.0		59.7	50.6	53.1		60.3	-	58.1	62.8	-	46.6	56.6	41.6	66.0	74.1	61.7
7/5/2016	6:38:00 PM	54.2	62.7	51.6	57.6		68.9	51.1	62.7		71.9	-	57.0	60.5	-	42.6	45.7	40.7	66.2	71.7	62.9
7/5/2016	6:39:00 PM	53.9	58.0	52.2	57.0		67.6	50.3	50.8		68.7	-	56.8	61.2	-	42.8	46.9	41.0	66.1	71.4	61.0
7/5/2016	6:40:00 PM	69.2	81.2	52.0	51.3		54.9	48.9	51.0		67.6	-	58.0	65.1	-	42.5	53.7	40.4	66.1	72.2	62.7
7/5/2016	6:41:00 PM	62.9	75.0	52.2	51.4		54.3	49.1	49.9		59.5	-	56.8	58.9	-	43.7	51.9	40.9	66.2	71.9	62.0
7/5/2016	6:42:00 PM	52.8	55.8	51.6	54.1		61.8	49.7	50.8		56.5	-	56.5	62.9	-	43.0	47.8	40.4	66.7	71.2	62.0
7/5/2016	6:43:00 PM	53.0	54.6	51.9	56.4		67.0	50.8	50.3		62.1	-	58.1	67.6	-	42.8	45.3	40.5	66.7	71.8	61.2
7/5/2016	6:44:00 PM	53.5	55.7	51.7	59.1		67.7	51.4	60.5		74.9	-	57.4	61.1	-	43.2	46.3	41.4	66.4	71.2	62.6
7/5/2016	6:45:00 PM	53.1	58.1	51.7	55.8		62.5	51.3	48.6		52.4	-	57.6	61.9	-	45.8	52.1	41.6	67.7	72.2	63.8
7/5/2016	6:46:00 PM	53.2	59.9	51.7	60.4		66.1	51.7	48.6		54.8	-	57.6	61.1	-	67.8	78.6	46.4	66.9	74.6	62.4
7/5/2016	6:47:00 PM	54.0	64.5	51.6	61.0		68.5	51.9	51.1		58.5	-	57.2	59.3	-	59.6	75.9	42.9	66.7	73.7	62.4
7/5/2016	6:48:00 PM	53.9	60.0	51.8	62.9		73.7	54.1	61.8		71.4	-	58.7	67.1	-	46.2	50.8	42.3	69.5	74.7	61.9
7/5/2016	6:49:00 PM	53.7	57.8	51.6	59.5		66.3	51.1	59.8		69.0	-	57.8	67.7	-	54.9	62.5	44.3	66.4	71.3	61.7
7/5/2016	6:50:00 PM	54.2	59.2	51.7	52.4		57.8	49.9	53.8		62.9	-	56.4	59.9	-	64.5	72.8	44.8	66.1	72.2	62.6
7/5/2016	6:51:00 PM	58.8	69.2	51.9	57.7		69.9	50.3	55.5		63.9	-	57.7	60.8	-	45.4	51.7	41.9	67.1	74.9	61.2
7/5/2016	6:52:00 PM	57.7	70.4	51.7	53.9		58.5	50.9	63.6		73.6	-	57.0	60.2	-	43.6	50.6	41.4	65.7	70.4	61.5
7/5/2016	6:53:00 PM	52.9	55.5	51.7	55.9		64.8	51.3	54.0		64.2	-	57.0	59.6	-	43.8	54.2	40.7	67.5	74.8	63.9
7/5/2016	6:54:00 PM	53.0	56.7	51.7	57.8		63.4	54.4	51.1		57.8	-	58.4	63.9	-	44.9	50.4	41.5	67.2	75.9	62.7
7/5/2016	6:55:00 PM	61.9	73.3	52.5	63.5		69.6	54.2	51.2		61.9	-	57.1	60.3	-	45.1	51.4	41.2	67.0	74.4	62.9
7/5/2016	6:56:00 PM	53.4	55.4	52.1	63.7		70.4	55.2	51.9		60.8	-	56.5	59.7	-	55.7	67.5	44.1	66.5	69.9	63.3
7/5/2016	6:57:00 PM	53.9	60.6	52.3	64.8		70.1	60.2	51.1		57.2	-	57.0	60.9	-	63.9	73.0	43.2	66.0	72.0	62.4
7/5/2016	6:58:00 PM	53.1	55.5	51.9	63.4		67.1	58.9	58.1		70.7	-	57.1	62.5	-	44.6	57.7	41.4	66.7	76.2	62.3
7/5/2016	6:59:00 PM	57.9	65.5	52.7	58.3		66.9	53.0	62.1		72.0	-	57.4	60.5	-	44.3	51.7	40.9	66.6	73.0	62.3
7/5/2016	7:00:00 PM	59.3	69.2	53.8	56.9	60.5	63.4	53.3	49.7	55.9	55.2	-	56.7	62.6	-	56.3	66.3	44.3	67.3	74.9	62.8
7/5/2016	7:01:00 PM	58.7	73.1	52.6	57.3		64.3	52.6	50.2		59.6	-	56.4	60.1	-	69.6	79.2	46.2	67.0	74.4	60.2
7/5/2016	7:02:00 PM	60.8	72.9	52.5	65.6		72.4	58.9	56.4		66.8	-	58.3	63.7	-	45.7	51.8	41.7	67.0	72.3	61.5
7/5/2016	7:03:00 PM	60.7	68.2	52.5	62.8		69.3	57.4	63.7		74.0	-	58.2	65.4	-	43.6	48.5	40.7	65.2	68.8	61.9
7/5/2016	7:04:00 PM	57.8	66.1	48.9	62.1		66.8	58.0	51.9		55.1	-	59.2	70.1	-	43.4	48.1	39.8	66.6	71.2	62.8
7/5/2016	7:05:00 PM	56.1	68.8	45.2	62.4		69.2	56.6	49.5		52.0	-	57.3	60.2	-	44.5	48.6	41.9	67.3	73.0	63.2
7/5/2016	7:06:00 PM	59.1	70.2	42.9	63.2		67.2	58.2	50.3		53.9	-	56.0	59.1	-	44.6	49.1	41.5	66.3	73.8	60.6
7/5/2016	7:07:00 PM	45.1	51.5	41.5	62.5		67.5	58.0	51.4		56.4	-	58.2	63.2	-	44.0	50.3	41.1	66.5	74.3	62.6
7/5/2016	7:08:00 PM	47.0	57.6	41.6	60.2		64.0	55.6	52.4		59.9	-	56.9	60.8	-	44.9	51.1	40.7	66.3	70.8	61.7
7/5/2016	7:09:00 PM	43.3	48.3	39.9	64.7		71.8	56.5	52.2		62.4	-	57.0	61.5	-	46.2	51.7	42.1	66.5	72.5	63.2
7/5/2016	7:10:00 PM	43.2	52.4	40.4	60.2		70.0	56.2	50.4		56.0	-	56.4	60.0	-	64.2	73.4	46.1	66.6	73.0	62.8
7/5/2016	7:11:00 PM	62.6	74.6	40.9	58.8		65.7	52.9	54.2		61.8	-	57.6	62.0	-	61.6	72.6	42.4	66.5	74.5	61.9
7/5/2016	7:12:00 PM	61.9	72.7	43.1	57.0		62.8	52.1	60.7		70.7	-	57.9	61.1	-	44.5	50.7	41.1	67.2	73.4	61.8
7/5/2016	7:13:00 PM	47.7	56.2	43.6	57.1		64.0	53.2	62.3		74.0	-	56.9	60.5	-	44.1	49.0	41.2	66.0	72.6	61.1
7/5/2016	7:14:00 PM	48.9	58.8	43.3	56.1		61.2	53.4	52.3		67.9	-	57.1	59.5	-	43.8	49.6	41.1	66.3	72.1	62.2
7/5/2016	7:15:00 PM	54.8	67.3	42.7	56.6		63.4	53.5	53.0		59.9	-	56.8	59.4	-	43.8	49.7	40.8	66.5	70.9	61.1
7/5/2016	7:16:00 PM	68.6	79.8	44.1	64.9		72.7	52.6	52.1		58.8	-	57.3	59.9	-	43.5	48.6	40.5	66.7	72.2	63.0
7/5/2016	7:17:00 PM	46.4	52.8	43.0	58.0		64.1	52.1	56.8		66.3	-	58.1	60.8	-	44.6	53.3	41.5	66.2	72.1	61.3
7/5/2016	7:18:00 PM	64.7	77.7	44.6	56.2		63.1	51.0	50.2		58.1	-	58.7	62.5	-	44.2	50.3	40.9	66.2	73.1	62.6
7/5/2016	7:19:00 PM	68.7	80.5	46.4	58.7		66.0	52.0	53.8		65.4	-	57.7	60.9	-	44.0	51.0	41.2	66.2	73.7	62.2
7/5/2016	7:20:00 PM	47.6	55.5	42.2	60.8		71.0	52.0	50.0		55.6	-	58.2	61.7	-	44.9	49.7	41.7	66.1	69.7	61.3
7/5/2016	7:21:00 PM	46.6	53.7	43.1	60.8		69.7	50.6	50.0		57.7	-	56.9	58.7	-	50.7	60.8	43.2	67.9	75.3	62.5
7/5/2016	7:22:00 PM	51.3	57.1	43.9	54.8		58.7	51.3	49.8		62.6	-	56.5	59.1	-	68.6	78.9	54.3	66.9	72.9	62.8
7/5/2016	7:23:00 PM	52.0	67.5	43.6	60.0		69.9	51.4	53.7		64.8	-	58.0	63.3	-	49.4	59.9	42.1	65.5	70.1	60.2
7/5/2016	7:24:00 PM	47.3	58.5	43.9	64.1		71.2	59.6	64.3		74.7	-	58.2	62.0	-	43.9	51.1	40.7	66.0	69.3	62.4
7/5/2016	7:25:00 PM	47.3	58.0	43.1	61.0		65.4	56.1	55.1		65.2	-	57.6	59.6	-	46.6	52.1	41.6	66.1	71.4	62.3
7/5/2016	7:26:00 PM	53.8	72.4	45.1	63.6		72.5	55.8	54.6		62.8	-	57.5	59.8	-	44.1	49.6	41.4	66.6	72.9	61.6
7/5/2016	7:27:00 PM	59.4	68.7	44.9	57.6		64.3	51.8	52.4		62.9	-	57.0	59.6	-	44.7	55.7	40.7	66.7	74.6	61.3
7/5/2016	7:28:00 PM	46.5	52.2	43.1	60

7/5/2016	7:45:00 PM	45.7	50.1	42.4	53.1		63.3	49.8	63.8		72.4	-	56.9	58.9	-	43.1	47.9	40.6	66.6	75.0	60.9
7/5/2016	7:46:00 PM	46.4	50.6	42.9	65.6		71.3	51.9	53.9		59.2	-	57.9	61.5	-	42.7	45.7	40.9	66.2	72.3	61.8
7/5/2016	7:47:00 PM	45.2	54.5	41.7	58.3		66.0	50.3	52.6		59.5	-	58.9	63.4	-	43.8	46.7	41.1	67.3	72.2	63.1
7/5/2016	7:48:00 PM	46.3	56.3	42.9	52.8		60.4	48.3	50.7		54.7	-	58.4	61.0	-	43.3	50.7	41.2	66.6	71.9	60.2
7/5/2016	7:49:00 PM	45.0	49.5	43.0	60.9		69.6	49.4	50.6		54.1	-	57.2	59.2	-	42.5	46.2	40.5	67.9	75.5	61.2
7/5/2016	7:50:00 PM	51.8	60.6	43.2	53.4		59.0	48.6	50.8		55.4	-	57.3	59.4	-	43.1	46.9	40.8	66.4	76.3	62.9
7/5/2016	7:51:00 PM	47.4	54.3	42.3	59.8		68.5	49.1	50.9		55.1	-	62.0	74.1	-	43.3	53.4	40.0	66.5	70.6	62.2
7/5/2016	7:52:00 PM	45.7	52.9	42.7	57.7		65.0	52.6	51.2		58.7	-	66.4	67.9	-	43.2	47.5	41.2	66.8	70.6	63.0
7/5/2016	7:53:00 PM	45.1	53.0	41.9	64.4		73.7	52.2	49.5		55.4	-	66.3	68.2	-	42.2	45.3	40.1	66.1	71.2	61.1
7/5/2016	7:54:00 PM	47.5	59.4	41.5	54.3		60.0	50.2	50.2		57.2	-	65.8	67.2	-	43.1	46.9	41.2	66.7	71.1	61.1
7/5/2016	7:55:00 PM	53.7	65.3	41.6	52.2		57.1	48.8	47.2		55.9	-	71.1	84.7	-	44.5	53.5	41.7	66.2	70.9	61.5
7/5/2016	7:56:00 PM	44.0	53.9	40.7	52.3		59.1	49.4	48.6		51.6	-	58.5	64.6	-	42.9	49.8	40.2	66.3	78.9	61.2
7/5/2016	7:57:00 PM	47.2	66.9	40.8	60.8		67.3	53.6	49.9		56.7	-	58.2	61.0	-	42.2	45.5	40.1	65.4	70.4	58.9
7/5/2016	7:58:00 PM	45.1	54.3	41.0	60.8		71.1	51.1	50.8		60.0	-	57.5	61.3	-	43.5	47.7	41.1	65.3	69.8	60.0
7/5/2016	7:59:00 PM	46.9	55.9	42.3	61.9		69.0	50.7	50.5		55.7	-	57.2	59.8	-	43.4	48.8	40.9	66.4	70.5	62.8
7/5/2016	8:00:00 PM	48.7	57.0	42.7	62.4	60.5	68.7	49.9	49.9	51.3	56.5	-	59.0	62.0	-	43.3	48.0	41.2	65.9	70.8	58.7
7/5/2016	8:01:00 PM	44.5	53.0	41.1	54.7		61.8	50.3	54.0		63.4	-	60.2	65.1	-	43.9	47.5	41.4	65.9	72.1	60.0
7/5/2016	8:02:00 PM	47.6	55.5	41.9	53.5		60.1	48.6	51.8		58.6	-	58.7	63.7	-	45.0	51.4	41.5	65.6	69.5	60.4
7/5/2016	8:03:00 PM	49.4	59.6	41.1	69.1		78.2	53.8	50.2		55.7	-	59.6	65.2	-	49.6	56.6	43.0	65.9	70.2	61.7
7/5/2016	8:04:00 PM	52.9	64.5	41.1	57.4		63.8	51.3	50.5		55.7	-	59.1	67.2	-	54.4	62.8	43.7	66.5	71.4	60.6
7/5/2016	8:05:00 PM	49.0	62.3	40.9	58.1		69.8	48.7	49.3		52.6	-	59.9	74.7	-	45.1	52.2	41.6	65.8	70.6	60.2
7/5/2016	8:06:00 PM	43.0	48.6	39.6	49.5		54.5	46.8	47.7		50.9	-	58.9	71.6	-	44.3	48.7	41.6	66.4	70.5	61.4
7/5/2016	8:07:00 PM	47.3	57.1	41.3	54.4		62.5	46.5	49.6		53.9	-	58.1	61.1	-	43.2	48.0	41.1	65.0	68.0	60.8
7/5/2016	8:08:00 PM	42.5	46.9	39.7	54.4		59.1	51.5	48.7		52.5	-	58.2	61.3	-	44.4	48.1	41.5	66.0	72.1	61.3
7/5/2016	8:09:00 PM	41.3	44.5	38.5	52.2		56.2	48.3	49.7		54.6	-	58.9	61.9	-	44.3	47.8	41.9	65.2	71.2	59.5
7/5/2016	8:10:00 PM	41.8	44.3	40.1	50.1		58.7	47.6	50.2		54.3	-	61.0	74.6	-	43.6	46.5	40.6	65.5	71.0	59.6
7/5/2016	8:11:00 PM	43.6	49.7	40.2	48.9		54.4	46.3	50.7		52.8	-	58.0	60.6	-	43.9	48.1	41.6	66.3	71.5	61.6
7/5/2016	8:12:00 PM	44.0	50.3	40.6	49.9		54.4	46.4	50.4		54.7	-	58.2	63.2	-	43.7	47.9	41.5	66.8	71.8	60.8
7/5/2016	8:13:00 PM	60.1	72.3	39.3	49.5		51.9	47.5	50.6		54.1	-	56.4	58.5	-	43.5	46.8	41.3	66.3	75.2	59.8
7/5/2016	8:14:00 PM	41.5	47.3	38.6	54.9		63.7	47.9	50.1		52.8	-	58.6	68.2	-	43.7	46.5	41.3	66.8	70.8	62.6
7/5/2016	8:15:00 PM	41.1	51.7	39.0	64.1		72.3	51.8	52.2		60.0	-	58.4	61.8	-	43.6	46.2	41.7	67.3	72.1	62.3
7/5/2016	8:16:00 PM	42.3	47.1	39.4	56.5		65.0	48.9	58.5		65.6	-	57.3	60.9	-	43.4	46.0	41.4	66.5	70.4	60.2
7/5/2016	8:17:00 PM	43.1	50.2	40.0	57.9		69.1	47.0	51.0		59.1	-	57.3	61.3	-	43.3	49.1	41.0	65.0	71.9	58.4
7/5/2016	8:18:00 PM	42.2	49.0	39.2	55.0		66.5	48.9	49.0		52.2	-	57.9	62.1	-	47.6	54.4	40.8	66.6	70.9	59.8
7/5/2016	8:19:00 PM	46.1	57.1	39.3	53.8		61.9	48.2	49.2		52.8	-	57.1	62.5	-	62.5	72.8	47.9	67.2	70.7	62.5
7/5/2016	8:20:00 PM	42.2	46.8	39.0	52.0		59.6	48.3	49.7		52.8	-	56.7	59.1	-	51.0	61.7	41.6	66.3	70.4	61.6
7/5/2016	8:21:00 PM	41.4	44.9	39.3	54.1		65.3	48.1	52.1		59.8	-	55.9	64.0	-	42.8	46.0	40.7	65.9	70.4	61.1
7/5/2016	8:22:00 PM	44.5	56.8	41.0	53.5		59.8	47.8	50.3		61.1	-	55.7	61.6	-	42.8	47.3	40.0	66.3	69.7	60.7
7/5/2016	8:23:00 PM	42.9	52.6	39.4	60.2		73.6	49.1	50.0		56.5	-	56.5	61.9	-	44.5	47.5	41.6	66.1	71.4	60.6
7/5/2016	8:24:00 PM	44.7	50.8	39.2	58.6		68.4	48.5	50.3		55.9	-	55.8	58.9	-	43.0	46.7	41.0	66.1	71.0	59.4
7/5/2016	8:25:00 PM	50.3	60.8	45.4	57.0		66.6	49.1	50.0		58.9	-	57.7	59.8	-	43.4	47.6	41.1	66.6	71.8	60.6
7/5/2016	8:26:00 PM	52.7	61.4	40.9	51.9		55.6	49.5	49.9		56.6	-	57.2	63.0	-	43.8	53.7	41.4	67.1	71.8	61.7
7/5/2016	8:27:00 PM	42.3	47.6	39.4	50.2		54.2	48.0	49.0		52.2	-	56.3	67.5	-	44.0	53.3	41.6	66.3	71.4	59.6
7/5/2016	8:28:00 PM	43.5	52.5	38.5	49.5		53.1	47.8	49.3		53.0	-	56.5	64.5	-	43.5	46.0	41.0	66.1	70.9	61.1
7/5/2016	8:29:00 PM	50.9	59.2	40.8	59.1		71.6	47.8	49.4		63.4	-	56.2	60.7	-	44.3	47.0	41.9	66.1	74.2	58.8
7/5/2016	8:30:00 PM	42.8	46.8	39.0	54.9		63.2	48.7	49.5		61.5	-	56.1	58.5	-	44.2	46.8	42.3	65.7	71.3	57.6
7/5/2016	8:31:00 PM	44.6	55.2	38.6	60.7		69.9	48.0	51.5		58.8	-	56.8	59.5	-	44.0	46.6	42.0	65.4	69.7	60.7
7/5/2016	8:32:00 PM	44.4	57.4	41.1	54.9		64.3	48.5	53.4		57.9	-	57.6	61.4	-	44.5	46.9	42.4	65.6	71.3	58.1
7/5/2016	8:33:00 PM	47.6	56.9	41.7	52.3		65.5	46.9	51.1		59.9	-	55.6	58.7	-	44.2	49.5	41.7	65.7	69.8	60.8
7/5/2016	8:34:00 PM	45.7	50.8	41.8	52.5		58.6	48.0	55.2		63.1	-	58.2	62.2	-	45.6	52.8	41.8	65.5	69.9	60.6
7/5/2016	8:35:00 PM	46.7	55.7	43.0	68.2		78.3	48.5	49.6		54.6	-	56.6	61.5	-	52.5	59.1	44.6	66.0	71.8	59.2
7/5/2016	8:36:00 PM	45.8	52.2	41.5	63.0		76.0	48.1	49.5		54.7	-	57.6	61.2	-	44.5	46.9	41.9	66.7	72.2	58.7
7/5/2016	8:37:00 PM	42.9	46.6	40.8	48.5		51.2	46.7	50.4		53.3	-	56.1	61.3	-	44.0	47.6	41.9	66.0	70.9	61.3
7/5/2016	8:38:00 PM	53.8	61.5	42.0	50.4		55.4	47.3	50.5		52.9	-	56.6	59.6	-	43.2	46.2	41.3	65.9	72.1	57.7
7/5/2016	8:39:00 PM	44.9	52.0	40.5	71.1		80.0	52.4	50.2		52.6	-	56.1	59.3	-	43.6	46.6	40.6	66.8	75.9	59.3
7/5/2016	8:40:00 PM	41.2	43.9	39.4	63.7		69.6	53.0	52.3		60.5	-	57.0	61.8	-	43.3	46.3	40.8	66.1	69.8	61.5
7/5/2016	8:41:00 PM	41.6	51.9	39.7	60.8		67.6	53.5	58.9		67.4	-	57.1	60.8	-	43.3	48.7	40.7	66.9	71.6	61.1
7/5/2016	8:42:00 PM	43.2	48.7	39.4	64.2		69.7	54.8	57.5		64.6	-	55.6	60.7	-	43.7	46.5	40.8	65.8	70.7	60.5
7/5/2016	8:43:00 PM	46.4	51.9	41.1	64.8		74.3	54.8	50.3		54.6	-	54.7	59.7	-	44.9	48.2	42.0	66.4	73.0	59.1
7/5/2016	8:44:00 PM	62.3	73.2	42.8	69.3		77.8	57.6	48.0		52.1	-	55.8	60.2	-	44.2	48.0	41.7	68.7	73.8	61.1
7/5/2016	8:45:00 PM	44.6	57.2	40.6	56.9		63.0	48.5	47.8		52.6	-	58.7	68.2	-	45.4	53.4	41.5	65.6	69.6	58.9
7/5/2016	8:46:00 PM	44.8	60.0	40.4	49.3		54.2	47.3	49.0		52.1	-	58.5	71.8	-	46.2	51.6	42.0	66.8	72.7	60.1
7/5/2016	8:47:00 PM	41.9	51.0	39.3	49.7		52.4	47.7	51.0		58.4	-	56.9	63.5	-	44.1	46.6	41.9	65.8	72.1	58.5
7/5/2016	8:48:00 PM	45.1	58.5	40.0	53.0		60.0	49.0	52.1		57.6	-	55.9	61.2	-	44.6	47.7	41.1	66.5	72.1	59.2
7/5/2016	8:49:00 PM	51.8	66.8	39.5	54.4		65.2	47.5	50.0		53.2	-	55.1	57.8	-	43.9	46.6	41.3	66.9	72.6	58.7
7/5/2016	8:50:00 PM	43.5	52.0	37.9	60.6		69.7	48.9	49.1		51.5	-	55.4	58.0	-	44.1	47.9	41.0	65.2	69.9	58.0
7/5/2016	8:51:00 PM	43.2	53.7	38.0	50.5		62.7	46.5	49.4		52.1	-	56.2	61.2	-	43.5	47.1	40.8	66.3	72.4	58.6
7/5/2016	8:52:00 PM	47.2	58.6	37.2	52.3		67.6	46.1	49.5		54.9	-	55.0	57.6	-	42.7	46.4	40.4	65.6	71.3	59.9
7/5/2016	8:53:00 PM	42.0	55.0	38.6	51.0		67.6	46.6	49.2		53.3	-	54.8	60.7	-	42.8	47.8	40.2	65.5	71.3	56.6
7/5/2016	8:54:00 PM	43.8	59.3	38.5	50.7		63.4	46.9	48.5		51.2	-	54.4	57.5	-	42.7	46.9	40.1	66.3	72.2	59.4
7/5/2016	8:55:00 PM	44.3	61.0	39.8	52.9		65.8	46.9	48.0		50.4	-	55.6	61.0	-	42.8	47.0	40.2	67.2	73.8	59.5
7/5/2016	8:56:00 PM	45.0	56.2	39.9	55.5		65.1	47.8	48.4		51.5	-	54.5	60.3	-	43.1	46.8	40.6	67.0	73.1	61.0
7/5/2016	8:57:00 PM	41.6	50.1	39.2	50.6		55.1	47.7	48.7		53.1	-	54.9	58.2	-	42.9	48.4	40.2	65.4	71.2	57.7
7/5/2016	8:58:00 PM	42.4	56.0	38.1	53.5		62.6	47.8	47.2		51.8	-	56.4	66.2	-	44.0	48.6	41.7	65.2	72.0	59.8
7/5/2016	8:59:00 PM	40.7	43.2	38.6	52.3		62.9	47.2	46.1		47.8	-	54.3	58.1	-	44.2	48.1	41.9	65.4	71.1	58.8
7/5/2016	9:00:00 PM	39.9	41.9	38.0	58.5	61.5	68.4	48.7	47.0	49.9	48.9	-	54.9	57.8	-	44.4	56.0	40.7	66.4	71.7	60.6
7/5/2016	9:01:00 PM	49.1	68.0	39.1	60.9		69.3	49.3	46.7		50.1	-	54.4	59.0	-	43.4	47.3	40.7	66.6	71.9	59.7
7/5/2016	9:02:00 PM	44.9	58.8	38.5	49.5		55.3	46.3	47.1		53.5	-	56.1	58.7	-	43.8	50.1	40.4	65.8	71.2	58.7
7/5/2016	9:03:00 PM	50.5	64.0	38.7	48.3		51.6	46.4	48.0		52.5	-	57.8	63.0	-	44.0	46.9	41.7	65.4	69.6	59.8
7/5/2016	9:04:00 PM	49.2	58.8	44.7	47.6		50.9	45.3	47.4		50.7	-	55.8	58.3	-	43.8	48.8	40.8	65.8	71.5	60.3
7/5/2016	9:05:00 PM	44.6	48.3	42.3	50.3		57.3	46.0	47.8		51.3	-	55.1	59.2	-	44.2	48.3	41.5	66.4	70.1	60.9
7/5/2016	9:06:00 PM	46.5	50.1	43.9	66.5		76.0	47.6	61.5		69.9	-	55.1	58.1	-	43.1	47.5	40.5	66.2	70.9	58.9
7/5/2016	9:07:00 PM	43.4	53.0	40.7	48.0		50.7	46.3	55.2		68.4	-	55.8	59.9	-	44.0	47.8	40.6	65.2	69.4	56.0
7/5/2016	9:08:00 PM	44.9	56.1	41.6	51.9		62.0	46.3	48.2		50.6	-	57.5	63.1	-	47.4	54.1	43.1	66.0	74.1	61.1
7/5/2016	9:09:00 PM	43.0	46.7	40.6	49.6		54.3	47.0	47.9		50.0	-	69.9	78.7	-	48.4	56.3	42.2	65.8	71.8	58.7
7/5/2016	9:10:00 PM	42.8	45.4	40.5	54.8		62.5	48.4	48.9		52.4	-	55.7	59.4	-	45.1	51.5	41.1	66.4	73.7	56.3
7/5/2016	9:11:00 PM	42.6	45.7	40.8	63.0		72.7	48.7	48.4		53.3	-	55.8	58.4	-	43.0	47.7	40.2	65.6	72.8	57.2
7/5/2016	9:12:00 PM	42.7	45.5	40.7	60.7		70.4	50.5	47.5		50.0	-	56.4	60.3	-	43.7	47.5	40.2	65.9	72.3	55.9
7/5/2016	9:13:00 PM	46.8	55.6	42.3	51.6		59.7	47.2	47.9		52.6	-	55.3	59.0	-	44.0	49.0	41.0	66.9	72.7	59.6
7/5/2016	9:14:00 PM	45.5	52.2	42.6	55.8		68.2	47.5	47.9		49.9	-	56.4	61.3	-	43.9	48.9	41.2	65.4	70.6	60.1
7/5/2016	9:15:00 PM	49.1	58.2	39.9	51.7		61.3	47.8	49.2		51.4	-	55.3	59.0	-	45.0	49.1	40.4	66.5	72.4	60.4
7/5/2016	9:16:00 PM	43.0	50.3	39.7	48.9		51.1	47.3	49.8		53.0	-	53.6	56.7	-	43.9	46.7	41.4	66.0	72.0	59.5
7/5/2016	9:17:00 PM	58.0	68.5	42.2	53.2		61.2	48.5	48.5		52.7	-	55.5	59.7	-	44.5	47.8	41.5	66.6	72.2	57.3
7/5/2016	9:18:00 PM	44.6	53.7	40.2	53.7		63.1	48.1	47.7		53.1	-	55.2	59.8	-	43.5	51.0	40.9	66.1	72.0	56.9
7/5/2016	9:19:00 PM	43.9	47.5	41.1	59.9		69.2	49.6	47.2		50.0	-	54.7	57.6	-	43.1	47.7	39.8	65.7	70.9	56.3
7/5/2016	9:20:00 PM	44.0	48.9	39.1	54.3		61.0	49.2	46.9		48.5	-	56.3	65.1	-	42.6	45.6	40.2	65.3	71.4	56.9
7/5/2016	9:21:00 PM	44.4	51.3	39.3	60.0		69.3	49.7	46.7		51.0	-	55.2	58.5	-	43.2	49.1	40.2	66.0	71.6	58.1
7/5/2016	9:22:00 PM	50.9	70.2	37.1	55.1		66.2	49.1	47.8		49.9	-	55.6	58.8	-	42.4	46.4	40.1	65.9	70.6	60.2
7/5/2016	9:23:00 PM	48.8	57.7	38.2	52.6		55.9	49.2	47.5		51.4	-	56.2	60.3	-	43.9	52.3	40.9	66.0	72.0	58.4
7/5/2016	9:24:00 PM	39.6	44.1	37.3	58.1		68.6	48.6	47.2		54.2	-	56.1	65.8	-	43.1	47.6	40.6	65.8	73.5	58.3
7/5/2016	9:25:00 PM	41.5	46.6	38.4	66.9		76.3	53.7	46.4		49.0	-	62.2	71.3	-	43.1	46.9	39.9	65.6	69.6	60.5
7/5/2016	9:26:00 PM	48.5	60.3	37.9	53.9		59.0	50.8	46.7		54.5	-	55.1	59.3	-	42.8	48.2	39.2	65.5	71.0	58.3
7/5/2016	9:27:00 PM	51.0	61.8	40.2	60.8		68.8	49.5	47.8		52.8	-	54.6	58.7	-	43.3	48.8	39.9	66.4	70.9	60.4
7/5/2016	9:28:00 PM	50.2	58.6	39.5	63.6		70.9	54.5	46.3		48.0	-	54.3	57.5	-	43.9	47.8	40.5	66.3	72.8	57.2
7/5/2016	9:29:00 PM	50.2	60.4	41.2	67.1		73.5	55.4	48.3		51.3	-	56.3	64.6	-	42.7	46.0	40.1	66.3	72.1	56.0
7/5/2016	9:30:00 PM	42.9	49.0	38.2	74.4		82.7	62.9	48.8		53.6	-	54.5	61.2	-	43.9	51.2	40.9	66.5	72.4	61.7
7/5/2016	9:31:00 PM	43.0	49.6	38.0	67.3		77.1	57.5	47.4		49.4	-	55.8	59.4	-	47.5	52.3	43.3	66.1	71.7	59.3
7/5/2016	9:32:00 PM	47.3	58.3	38.4	61.5		68.2	55.4	48.5		53.1	-	56.0	64.1	-	44.4	48.6	42.2	65.9	71.4	56.5
7/5/2016	9:33:00 PM	40.0	43.9	36.9	65.8		75.6	60.3	46.6		50.4	-	55.2	61.2	-	44.1	48.5	41.1	66.1	72.7	59.0
7/5/2016	9:34:00 PM	45.8	57.1	36.5	65.9		69.9	60.6	47.6		50.7	-	54.4	56.9	-	43.7	47.6	41.3	66.3	73.3	59.3
7/5/2016	9:35:00 PM	41.8	49.4	35.6	61.8		70.8	51.7	48.3		51.7	-	56.2	60.1	-	43.8	47.5	41.4	66.2	72.1	58.7
7/5/2016	9:36:00 PM	39.3	45.8	34.9	54.7		60.9	50.0	49.6		55.0	-	58.4	72.8	-	43.4	47.2	40.5	67.3	73.8	59.5
7/5/2016	9:37:00 PM	45.9	54.4	38.1	52.2		56.2	49.6	50.7		58.2	-	56.0	67.7	-	43.4	47.7	40.6	66.0	72.8	58.8
7/5/2016	9:38:00 PM	40.5	50.4	36.2	51.7		57.4	48.2	53.6		60.4	-	55.7	67.8	-	44.6	47.7	41.6	66.3	72.8	58.5
7/5/2016	9:39:00 PM	39.1	42.9	36.0	51.6		58.8	47.0	47.0		49.5	-	56.2	69.1	-	43.5	47.5	40.9	65.7	70.8	57.6
7/5/2016	9:40:00 PM	40.1	42.6	37.4	50.8		59.0	46.7	49.1		51.7	-	56.1	62.1	-	44.0	48.7	41.4	65.4	70.3	58.1
7/5/2016	9:41:00 PM	40.1	45.9	37.8	48.3		50.5	46.6	48.3		50.4	-	55.6	69.4	-	45.9	53.5	41.6	65.8	71.0	53.8
7/5/2016	9:42:00 PM	40.0	43.9	36.4	49.1		51.6	47.3	47.5		51.4	-	56.3	59.9	-	46.0	53.2	42.1	65.8	70.5	59.3
7/5/2016	9:43:00 PM	39.3	43.7	35.8	52.6		63.2	47.2	48.0		50.8	-	56.3	60.2	-	45.3	49.9	42.1	65.7	70.4	58.0
7/5/2016	9:44:00 PM	42.2	52.0	36.8	52.8		63.0	47.6	49.1		55.4	-	55.0	57.4	-	43.9	47.5	40.6	65.8	71.1	59.9
7/5/2016	9:45:00 PM	39.1	43.8	36.1	63.5		72.0	51.9	50.3		63.0	-	55.2	58.5	-	44.0	48.1	41.3	65.8	71.5	55.5
7/5/2016	9:46:00 PM	44.6	53.8	36.1	50.3		55.4	46.8	49.1		56.6	-	54.9	58.0	-	43.9	47.3	41.4	65.5	70.7	59.7
7/5/2016	9:47:00 PM	45.0	57.4	36.1	50.0		53.4	46.5	47.4		49.3	-	55.4	60.7	-	44.0	47.1	41.5	65.5	70.7	58.6
7/5/2016	9:48:00 PM	39.0	42.6	36.2	50.4		54.0	48.1	49.7		54.7	-	55.9	61.4	-	43.5	46.3	40.8	65.9	71.3	60.4
7/5/2016	9:49:00 PM	40.9	46.7	38.4	52.7		60.4	47.9	49.1		53.7	-	54.3	59.2	-	44.3	48.9	40.9	66.3	70.7	61.0
7/5/2016	9:50:00 PM	41.4	45.3	37.2	51.9		60.7	46.9	49.4		53.9	-	53.6	56.8	-	44.0	47.8	41.2	66.7	72.0	58.4
7/5/2016	9:51:00 PM	39.4	42.0	37.2	55.0		65.7	48.1	52.6		60.0	-	54.7	58.6	-	45.6	50.4	41.9	66.2	71.4	60.7
7/5/2016	9:52:00 PM	40.0	43.8	37.4	54.8		64.0	49.2	49.6		56.4	-	55.4	62.5	-	44.3	47.2	41.2	66.7	72.8	59.6
7/5/2016	9:53:00 PM	45.8	50.6	39.9	51.3		55.2	48.7	51.0		58.4	-	54.8	59.0	-	44.1	48.0	41.7	67.1	72.7	59.4
7/5/2016	9:54:00 PM	44.1	46.9	40.6	67

7/5/2016	10:11:00 PM	41.9	45.1	38.4	51.0		55.7	47.8	48.0		51.3	-	55.8	59.5	-	44.2	46.7	41.4	65.6	71.3	57.5
7/5/2016	10:12:00 PM	42.5	45.3	38.7	65.7		76.1	48.3	46.8		50.1	-	54.0	62.0	-	43.7	48.9	40.2	65.4	70.1	57.3
7/5/2016	10:13:00 PM	41.5	47.8	35.4	59.1		69.8	48.3	45.2		48.0	-	53.3	55.9	-	43.3	46.6	40.7	66.6	71.9	59.8
7/5/2016	10:14:00 PM	47.8	60.0	34.8	50.7		62.1	46.5	44.9		46.8	-	53.8	56.7	-	44.0	55.8	40.7	66.5	70.9	56.4
7/5/2016	10:15:00 PM	45.1	53.9	39.0	61.5		72.6	48.5	47.6		53.9	-	53.9	56.9	-	43.9	47.3	40.2	67.0	73.7	60.6
7/5/2016	10:16:00 PM	43.0	49.4	38.3	58.0		67.4	47.0	47.7		60.2	-	56.1	61.7	-	43.5	47.1	39.6	65.2	70.4	57.6
7/5/2016	10:17:00 PM	42.7	48.3	39.3	50.4		53.0	46.7	45.6		47.2	-	54.4	60.3	-	44.4	49.5	41.2	65.6	68.9	58.6
7/5/2016	10:18:00 PM	40.5	51.4	38.5	51.1		53.8	48.4	46.6		49.1	-	54.5	59.2	-	44.0	47.2	41.2	65.2	69.2	56.7
7/5/2016	10:19:00 PM	40.1	42.9	36.5	54.3		62.6	49.4	46.3		51.9	-	54.4	62.9	-	45.1	49.3	41.7	66.9	72.2	57.1
7/5/2016	10:20:00 PM	48.3	61.1	37.9	52.2		56.0	49.9	46.7		51.2	-	52.9	56.6	-	44.1	48.0	40.5	65.9	72.0	60.4
7/5/2016	10:21:00 PM	47.3	67.4	38.6	53.1		56.8	50.7	47.8		52.0	-	53.9	56.9	-	44.2	48.1	40.9	65.3	70.4	56.5
7/5/2016	10:22:00 PM	45.9	66.4	37.3	61.3		75.0	49.0	47.5		50.9	-	52.9	56.8	-	44.1	48.9	41.0	65.2	69.7	56.9
7/5/2016	10:23:00 PM	39.2	49.6	36.6	64.4		74.5	53.6	46.2		49.2	-	54.7	59.4	-	44.5	48.3	41.3	66.5	72.6	54.1
7/5/2016	10:24:00 PM	45.2	54.2	37.0	54.2		61.3	50.0	46.3		50.0	-	54.1	64.1	-	44.5	49.0	41.7	65.9	71.9	58.0
7/5/2016	10:25:00 PM	50.5	63.6	38.4	53.0		63.1	49.3	47.3		51.9	-	53.3	56.3	-	43.5	46.7	39.9	66.1	71.3	58.2
7/5/2016	10:26:00 PM	40.5	55.9	36.8	54.9		65.6	50.3	45.7		47.8	-	54.1	59.6	-	44.1	49.3	40.8	65.2	70.7	54.9
7/5/2016	10:27:00 PM	39.6	52.2	36.8	54.0		58.5	51.2	46.7		50.6	-	55.3	63.9	-	43.5	47.1	40.7	65.9	72.0	57.2
7/5/2016	10:28:00 PM	47.5	69.5	38.0	53.3		56.1	50.5	45.6		48.9	-	54.4	58.3	-	43.4	46.9	40.8	65.3	70.9	55.9
7/5/2016	10:29:00 PM	43.1	48.1	41.8	53.6		57.3	49.7	46.1		49.1	-	55.0	65.8	-	44.2	47.7	40.8	65.7	70.6	54.8
7/5/2016	10:30:00 PM	44.5	59.0	41.2	53.9		56.8	51.9	45.0		47.2	-	54.3	61.6	-	43.6	47.7	40.7	66.5	72.1	58.0
7/5/2016	10:31:00 PM	42.9	58.2	40.2	55.3		64.1	50.4	46.1		48.5	-	53.2	57.5	-	43.5	46.8	40.6	66.1	71.0	58.3
7/5/2016	10:32:00 PM	43.2	59.0	40.5	55.7		64.7	51.2	45.8		49.4	-	52.7	56.1	-	43.9	52.5	40.4	65.7	72.1	54.3
7/5/2016	10:33:00 PM	42.3	43.6	40.8	62.8		72.5	50.9	45.4		47.4	-	53.9	60.1	-	43.6	48.6	40.1	65.7	71.2	56.6
7/5/2016	10:34:00 PM	45.0	61.2	41.4	55.7		65.6	50.1	51.2		55.2	-	52.7	59.3	-	43.7	48.7	40.7	66.7	71.7	57.2
7/5/2016	10:35:00 PM	44.1	50.9	38.4	52.8		57.1	49.6	52.5		56.8	-	55.0	66.1	-	43.3	46.7	40.7	66.7	71.2	58.5
7/5/2016	10:36:00 PM	44.1	52.1	38.5	51.3		54.1	49.2	52.7		56.1	-	51.8	55.0	-	43.2	47.8	39.3	65.8	71.3	56.9
7/5/2016	10:37:00 PM	39.2	42.3	36.3	49.1		51.9	47.1	51.2		56.1	-	56.1	70.2	-	42.6	46.9	39.1	66.8	74.1	60.7
7/5/2016	10:38:00 PM	38.5	42.1	35.7	49.1		51.2	47.2	53.0		56.5	-	53.3	55.9	-	42.9	49.2	39.5	65.6	70.2	59.0
7/5/2016	10:39:00 PM	39.7	45.2	36.9	49.7		52.3	48.0	52.5		56.3	-	53.6	58.3	-	43.2	49.9	40.0	65.7	69.4	57.0
7/5/2016	10:40:00 PM	39.1	41.7	37.0	49.5		51.5	47.2	51.2		56.3	-	52.8	59.2	-	43.4	46.4	40.0	66.2	72.2	57.6
7/5/2016	10:41:00 PM	40.5	44.4	36.9	50.0		52.2	47.8	53.6		56.8	-	54.2	64.7	-	43.1	46.9	39.5	67.2	72.8	60.6
7/5/2016	10:42:00 PM	39.4	44.0	37.7	50.0		52.9	48.0	53.7		57.3	-	52.2	55.6	-	43.0	48.0	40.1	65.1	71.5	58.6
7/5/2016	10:43:00 PM	41.0	48.5	36.8	52.7		60.1	48.7	51.9		56.3	-	52.3	55.4	-	42.4	46.4	39.5	65.2	69.2	58.4
7/5/2016	10:44:00 PM	38.5	41.2	36.4	57.2		69.3	47.5	52.6		55.9	-	52.1	55.1	-	42.9	46.8	38.6	65.5	70.4	55.2
7/5/2016	10:45:00 PM	39.0	51.3	35.0	62.8		71.4	52.0	53.8		62.3	-	51.8	58.3	-	42.8	47.5	39.9	65.4	72.0	53.3
7/5/2016	10:46:00 PM	46.1	58.9	34.8	54.0		59.2	49.1	53.7		57.3	-	50.3	56.2	-	41.8	45.2	38.6	66.0	71.6	56.3
7/5/2016	10:47:00 PM	42.5	49.7	37.1	52.3		56.6	49.6	52.9		67.4	-	52.1	57.0	-	42.2	46.6	38.6	66.3	71.1	57.9
7/5/2016	10:48:00 PM	48.0	58.2	37.9	52.6		56.6	50.3	52.9		58.9	-	50.0	53.0	-	41.5	54.0	38.7	66.2	72.9	58.0
7/5/2016	10:49:00 PM	38.6	41.9	36.3	67.5		76.2	51.0	54.2		57.6	-	49.6	51.4	-	42.1	53.9	39.1	67.1	73.1	56.5
7/5/2016	10:50:00 PM	39.3	44.6	36.3	58.0		65.1	49.5	51.9		57.7	-	50.1	55.2	-	41.3	45.3	38.5	66.2	73.0	59.3
7/5/2016	10:51:00 PM	49.3	60.0	39.6	50.8		52.7	49.2	53.2		57.8	-	49.5	52.8	-	42.1	52.5	38.0	66.2	71.5	56.7
7/5/2016	10:52:00 PM	41.3	48.7	38.3	54.2		62.4	49.3	47.0		54.0	-	49.0	52.5	-	42.1	47.5	39.1	66.2	71.0	58.0
7/5/2016	10:53:00 PM	40.0	41.8	38.3	52.7		60.9	48.4	46.7		51.9	-	50.2	53.9	-	42.1	46.2	39.1	66.0	71.0	57.4
7/5/2016	10:54:00 PM	40.1	51.5	37.0	67.1		76.9	47.9	47.0		52.7	-	50.3	54.3	-	41.7	44.8	38.6	67.4	73.8	60.9
7/5/2016	10:55:00 PM	42.6	48.4	38.1	62.3		73.2	49.0	48.6		55.3	-	48.1	51.6	-	41.8	44.6	38.7	66.8	73.9	59.7
7/5/2016	10:56:00 PM	46.2	55.9	38.2	67.3		77.7	52.7	44.5		47.1	-	49.7	53.6	-	43.2	47.2	39.0	67.1	73.9	59.5
7/5/2016	10:57:00 PM	47.9	59.2	38.0	63.3		75.5	47.0	44.7		47.4	-	47.8	51.0	-	44.1	50.7	39.6	66.4	71.8	57.8
7/5/2016	10:58:00 PM	41.5	48.3	36.6	62.1		76.2	48.8	44.1		47.6	-	47.6	50.7	-	46.1	51.9	41.4	65.7	70.9	57.4
7/5/2016	10:59:00 PM	46.9	57.3	36.8	65.6		75.3	47.9	43.8		47.1	-	50.0	59.4	-	43.6	48.8	39.6	66.5	71.6	58.7
7/5/2016	11:00:00 PM	40.4	48.5	36.5	55.2	52.8	64.6	47.1	46.0	44.2	49.7	-	47.7	51.5	-	43.0	47.2	39.0	66.7	73.0	59.1
7/5/2016	11:01:00 PM	46.1	54.7	37.7	48.4		50.1	46.9	46.7		51.0	-	47.7	52.9	-	41.7	46.9	38.4	65.5	71.4	56.9
7/5/2016	11:02:00 PM	42.1	55.9	39.4	49.2		51.6	47.1	43.3		47.0	-	48.2	52.7	-	41.1	45.3	37.2	65.2	70.7	54.6
7/5/2016	11:03:00 PM	42.2	49.6	39.6	49.4		51.3	48.0	47.6		51.6	-	47.1	50.4	-	41.4	45.5	38.2	66.5	72.5	57.0
7/5/2016	11:04:00 PM	43.3	48.0	40.5	48.9		51.5	46.9	45.4		49.4	-	48.5	55.0	-	41.1	46.7	37.3	66.6	72.1	58.1
7/5/2016	11:05:00 PM	44.8	53.2	40.4	49.8		52.7	47.9	43.7		47.3	-	50.0	55.3	-	41.5	46.1	38.4	66.6	72.3	59.0
7/5/2016	11:06:00 PM	42.2	50.2	39.7	49.8		52.5	47.9	45.1		49.8	-	47.6	50.7	-	40.5	43.8	37.4	66.9	74.1	56.4
7/5/2016	11:07:00 PM	42.0	47.1	38.7	56.8		65.9	47.5	46.1		49.3	-	48.5	55.9	-	40.2	43.8	37.7	68.0	75.1	62.1
7/5/2016	11:08:00 PM	42.3	46.6	40.2	57.0		70.7	50.0	45.3		49.8	-	47.1	56.9	-	40.2	45.3	37.7	67.4	73.2	59.2
7/5/2016	11:09:00 PM	44.9	55.4	39.5	66.4		74.4	49.8	44.1		46.0	-	46.8	50.1	-	39.8	45.4	37.1	66.8	73.5	58.9
7/5/2016	11:10:00 PM	44.5	57.5	38.7	52.1		58.9	47.6	44.0		45.9	-	46.2	51.2	-	39.6	43.3	37.0	66.7	71.7	58.7
7/5/2016	11:11:00 PM	44.5	53.5	37.7	52.9		63.1	47.3	44.5		46.8	-	46.6	50.1	-	40.0	44.5	37.5	66.0	72.1	58.2
7/5/2016	11:12:00 PM	41.8	54.5	37.5	48.2		50.2	46.4	43.6		45.6	-	46.8	52.6	-	40.0	44.7	37.2	65.4	69.0	58.6
7/5/2016	11:13:00 PM	48.4	62.2	37.7	48.7		50.5	47.2	43.3		44.7	-	47.5	51.1	-	40.5	44.3	37.3	66.3	71.3	58.5
7/5/2016	11:14:00 PM	42.6	55.4	30.9	48.8		50.9	46.9	43.5		45.4	-	47.6	51.0	-	40.2	42.6	37.9	66.0	70.7	58.0
7/5/2016	11:15:00 PM	35.3	41.3	30.6	48.9		51.1	46.6	43.6		50.9	-	48.1	55.0	-	40.9	45.8	36.9	65.5	70.7	56.1
7/5/2016	11:16:00 PM	36.0	40.4	34.2	51.4		61.0	47.2	43.0		53.5	-	47.0	50.5	-	41.7	46.9	38.4	66.0	71.4	56.2
7/5/2016	11:17:00 PM	36.0	39.7	33.9	48.2		53.2	46.4	44.5		49.9	-	46.6	50.1	-	40.1	44.4	37.4	66.0	72.3	54.8
7/5/2016	11:18:00 PM	35.4	41.1	30.6	48.0		49.7	46.2	43.9		48.8	-	46.1	48.4	-	39.7	44.6	37.0	66.8	74.0	59.8
7/5/2016	11:19:00 PM	31.8	37.4	29.6	49.0		54.7	46.3	45.6		54.8	-	48.0	56.5	-	39.4	43.6	36.5	66.2	72.5	60.7
7/5/2016	11:20:00 PM	33.4	44.4	29.3	53.4		64.0	46.4	45.8		52.2	-	47.1	49.3	-	44.5	54.0	37.9	66.0	72.8	59.2
7/5/2016	11:21:00 PM	37.5	48.8	29.3	48.4		50.4	46.7	43.2		45.4	-	47.6	53.0	-	41.9	49.9	37.9	67.3	72.3	58.5
7/5/2016	11:22:00 PM	31.0	35.7	28.9	47.4		49.3	45.7	45.0		47.9	-	46.4	50.9	-	39.5	44.2	37.2	65.9	72.6	55.8
7/5/2016	11:23:00 PM	31.0	37.3	28.6	47.5		49.8	45.4	43.0		45.7	-	46.2	50.7	-	39.9	44.4	36.5	68.0	72.3	62.8
7/5/2016	11:24:00 PM	31.4	38.1	29.3	48.6		56.1	46.3	45.1		51.7	-	46.2	51.1	-	39.9	44.9	37.2	66.7	72.6	59.5
7/5/2016	11:25:00 PM	31.7	36.5	29.1	50.4		61.0	45.8	44.0		47.2	-	47.4	53.5	-	39.5	43.3	37.0	66.5	73.2	56.0
7/5/2016	11:26:00 PM	31.9	40.4	28.9	46.9		48.6	45.3	42.9		44.6	-	44.7	47.0	-	39.9	46.2	36.9	65.4	71.1	58.0
7/5/2016	11:27:00 PM	31.5	36.8	29.1	51.2		59.3	45.8	45.8		53.4	-	46.0	48.6	-	38.9	42.6	35.7	65.9	71.5	57.8
7/5/2016	11:28:00 PM	31.7	37.2	28.7	54.8		64.2	46.4	43.2		46.2	-	46.0	55.1	-	38.9	43.4	35.8	65.1	70.6	53.9
7/5/2016	11:29:00 PM	40.2	50.9	31.1	48.7		51.7	46.8	42.4		44.2	-	44.9	49.4	-	39.2	43.0	36.4	65.9	69.6	60.5
7/5/2016	11:30:00 PM	33.4	45.8	30.3	52.5		63.1	47.2	42.8		46.2	-	45.2	54.7	-	38.7	43.5	36.1	65.3	69.0	56.7
7/5/2016	11:31:00 PM	34.4	51.8	30.4	50.3		58.1	47.3	43.1		48.0	-	44.9	48.2	-	38.8	45.7	35.4	66.5	72.7	59.9
7/5/2016	11:32:00 PM	32.5	37.5	29.5	49.0		51.2	46.5	42.8		45.5	-	46.3	51.3	-	39.0	47.2	36.2	65.6	71.8	57.8
7/5/2016	11:33:00 PM	48.5	58.0	30.4	47.2		49.8	45.3	44.0		47.4	-	45.1	48.0	-	39.8	44.3	36.2	65.2	69.8	60.3
7/5/2016	11:34:00 PM	53.9	57.0	52.5	47.3		50.2	44.4	41.7		43.7	-	45.4	48.0	-	39.6	44.1	36.0	65.7	71.4	57.0
7/5/2016	11:35:00 PM	53.8	55.4	52.6	47.8		50.4	45.3	42.7		50.6	-	45.7	52.6	-	39.6	48.3	36.4	66.5	72.4	58.4
7/5/2016	11:36:00 PM	54.6	55.7	52.7	46.7		49.6	44.7	44.0		46.9	-	46.3	56.9	-	39.6	44.1	36.5	65.7	70.9	59.7
7/5/2016	11:37:00 PM	53.0	54.6	51.7	46.8		48.5	44.9	43.8		45.9	-	45.0	53.9	-	39.3	46.4	36.4	67.1	72.9	57.4
7/5/2016	11:38:00 PM	52.4	56.5	51.4	47.9		49.8	45.8	43.4		45.9	-	45.0	49.8	-	39.0	44.1	35.7	65.4	69.6	60.6
7/5/2016	11:39:00 PM	52.2	53.1	51.4	47.9		50.0	45.7	44.3		47.3	-	44.7	48.7	-	39.8	45.6	36.2	65.8	71.0	55.9
7/5/2016	11:40:00 PM	52.2	53.0	51.4	54.0		62.9	46.5	43.5		57.0	-	48.8	57.4	-	39.8	43.0	36.9	65.5	70.8	59.2
7/5/2016	11:41:00 PM	52.2	53.1	51.3	47.8		49.8	46.5	43.9		48.4	-	47.1	57.3	-	39.6	46.3	36.5	66.0	70.7	58.3
7/5/2016	11:42:00 PM	52.4	53.7	51.5	55.1		62.7	47.2	44.1		47.3	-	48.1	57.4	-	39.5	46.7	37.0	65.8	72.1	59.1
7/5/2016	11:43:00 PM	52.1	53.1	51.3	48.5		56.8	46.9	42.7		44.6	-	48.8	54.1	-	39.3	43.7	36.5	66.3	71.4	58.8
7/5/2016	11:44:00 PM	52.0	52.9	51.3	48.2		49.6	46.8	43.1		46.1	-	55.8	70.5	-	39.4	44.9	36.2	67.1	71.4	61.7
7/5/2016	11:45:00 PM	52.1	53.9	51.3	48.7		51.2	46.0	42.6		45.4	-	51.0	68.0	-	39.1	44.4	36.1	65.3	70.2	58.7
7/5/2016	11:46:00 PM	52.0	52.9	51.5	48.9		50.3	47.2	44.5		49.2	-	49.4	57.6	-	39.2	44.3	36.2	65.9	70.7	59.1
7/5/2016	11:47:00 PM	52.2	55.3	51.3	48.6		50.3	47.0	44.1		46.7	-	47.6	52.6	-	38.9	45.0	35.7	66.2	71.9	61.1
7/5/2016	11:48:00 PM	52.0	53.9	51.1	49.0		54.0	46.7	45.0		48.2	-	46.9	53.0	-	39.1	44.0	35.8	67.0	72.4	59.0
7/5/2016	11:49:00 PM	51.9	52.8	51.2	49.1		50.8	47.2	44.1		46.8	-	46.8	49.6	-	39.1	44.7	36.6	66.2	72.1	57.2
7/5/2016	11:50:00 PM	51.9	52.8	51.3	48.9		55.1	46.5	44.0		45.4	-	47.1	53.1	-	39.4	43.7	36.5	66.6	72.8	59.3
7/5/2016	11:51:00 PM	51.9	53.1	51.2	53.7		65.7	45.5	42.5		44.4	-	47.3	51.6	-	40.9	48.7	36.3	65.5	71.1	60.3
7/5/2016	11:52:00 PM	52.2	54.7	51.3	48.4		50.7	46.2	42.1		45.0	-	45.8	49.7	-	39.7	47.0	35.8	66.1	71.7	58.7
7/5/2016	11:53:00 PM	51.9	55.1	51.2	52.6		60.8	46.1	42.4		44.6	-	47.0	59.1	-	38.9	43.5	36.2	65.9	72.4	54.3
7/5/2016	11:54:00 PM	51.8	53.1	51.1	50.5		61.1	45.8	43.0		45.1	-	46.9	53.3	-	39.1	44.1	36.2	66.4	72.1	61.4
7/5/2016	11:55:00 PM	51.9	52.6	51.1	54.9		64.6	47.2	42.7		45.8	-	47.2	56.5	-	38.5	42.7	36.1	66.6	72.5	56.6
7/5/2016	11:56:00 PM	51.9	52.7	51.1	48.5		51.0	46.7	46.0		54.4	-	46.8	50.8	-	39.0	45.7	36.3	66.3	71.5	59.5
7/5/2016	11:57:00 PM	51.9	52.6	51.2	49.2		51.6	47.1	43.9		45.9	-	46.8	50.9	-	38.9	43.5	35.5	66.4	73.2	57.7
7/5/2016	11:58:00 PM	51.9	53.4	51.1	48.8		50.5	47.2	44.3		46.1	-	46.7	49.5	-	38.4	43.2	35.4	66.6	72.3	60.3
7/5/2016	11:59:00 PM	51.9	52.6	51.2	48.6		50.1	46.7	45.7		56.3	-	49.4	62.6	-	38.4	42.9	35.3	65.1	70.8	56.5
7/6/2016	12:00:00 AM	51.8	52.5	51.2	48.7	49.9	50.7	47.3	42.9	43.5	45.6	-	47.8	52.0	-	38.5	43.7	35.8	66.4	72.0	60.2
7/6/2016	12:01:00 AM	51.8	52.7	51.1	48.9		50.7	47.5	43.0		47.0	-	46.9	53.3	-	38.5	43.2	35.3	65.5	71.0	57.3
7/6/2016	12:02:00 AM	51.7	52.5	51.0	49.6		51.3	47.3	44.9		54.7	-	47.6	49.5	-	38.0	41.8	35.3	64.9	69.4	59.2
7/6/2016	12:03:00 AM	51.8	52.8	51.0	48.8		50.5	47.0	44.2		50.7	-	47.1	49.9	-	38.2	42.9	34.9	67.6	73.1	62.1
7/6/2016	12:04:00 AM	52.1	52.8	51.3	48.5		50.5	46.8	42.9		46.9	-	47.6	51.1	-	37.9	43.1	35.1	67.4	73.1	59.5
7/6/2016	12:05:00 AM	51.9	52.9	51.0	48.7		50.4	47.1	44.3		52.2	-	47.5	50.0	-	37.9	41.6	35.5	66.4	71.0	61.1
7/6/2016	12:06:00 AM	51.8	52.6	51.1	50.8		58.0	46.7	45.3		55.8	-	47.5	51.1	-	38.3	42.9	35.7	66.1	69.8	59.5
7/6/2016	12:07:00 AM	51.8	52.6	51.0	53.4		62.1	48.1	42.9		44.2	-	47.9	53.1	-	38.5	42.2	36.0	66.3	70.9	61.9
7/6/2016	12:08:00 AM	51.8	52.5	51.0	50.6		57.0	48.0	45.1		52.1	-	47.4	52.5	-	38.7	45.6	36.2	66.3	71.9	59.5
7/6/2016	12:09:00 AM	51.9	52.7	51.2	52.5		62.9	47.6	45.5		55.7	-	46.8	50.2	-	38.0	43.6	35.5	65.6	72.0	58.9
7/6/2016	12:10:00 AM	52.0	52.8	51.3	49.0		55.9	47.1	44.3		48.8	-	47.2	50.7	-	38.4	46.8	35.7	65.3	70.5	58.4
7/6/2016	12:11:00 AM	52.0	52.7	51.2	48.8		50.2	47.2	45.5		49.2	-	46.3	48.7	-	38.6	44.1	35.3	65.3	69.9	57.5
7/6/2016	12:12:00 AM	52.1	52.8	51.3	47.8		49.4	46.0	45.4		55.8	-	47.1	51.7	-	37.6	43.1	35.3	67.2	72.3	61.0
7/6/2016	12:13:00 AM	52.2	53.6	51.2	48.1		50.3	45.9	43.4		48.6	-	46.8	49.2	-	37.5	41.8	35.1	66.4	71.8	60.2
7/6/2016	12:14:00 AM	52.2	53.6	51.4	47.2		49.5	44.7	43.4		51.4	-	48.1	53.8	-	38.2	42.2	35.6	66.2	71.1	60.3
7/6/2016	12:15:00 AM	51.9	57.7	51.0	47.4		49.7	45.4	46.0		55.9	-	48.2	51.3	-	38.0	43.0	35.4	65.1	70.2	57.5
7/6/2016	12:16:00 AM	51.9	52.6	51.1	48.2		50.2	46.3	43.0		46.3	-	49.3	57.9	-	38.6	45.1	36.3	66.3	70.8	59.6
7/6/2016	12:17:00 AM	51.8	52.7	51.2	47.3		49.6	45.1	43.6		47.7	-	48.2	57.9	-	39.1	44.7	36.6	66.9	72.2	60.9
7/6/2016	12:18:00 AM	51.7	52.4	51.0	48.0		53.4	45.6	43.7		49.4	-	47.7	51.9	-	39.4	46.9	35.0	66.2	72.1	59.7
7/6/2016	12:19:00 AM	51.8	53.5	51.0	50.8		57.0	46.6	43.1		45.2	-	50.0	60.3	-	37.3	41.3	34.8	65.2	69.4	60.6
7/6/2016	12:20:00 AM	54.1	63.0	51.0	49.1	

7/6/2016	12:37:00 AM	52.0	53.7	51.0	48.4		54.9	44.6	42.3		45.5	-	48.5	51.2	-	36.8	45.7	34.4	66.3	69.3	61.1
7/6/2016	12:38:00 AM	53.1	60.6	51.0	45.2		50.5	43.2	42.8		45.9	-	47.4	52.9	-	35.7	39.7	33.4	65.1	72.7	59.1
7/6/2016	12:39:00 AM	51.8	52.6	51.0	44.7		46.3	42.9	42.8		45.7	-	47.5	55.6	-	35.9	39.6	33.8	65.9	70.9	61.9
7/6/2016	12:40:00 AM	51.7	52.6	50.9	44.8		46.7	43.2	42.8		44.5	-	47.3	50.2	-	36.7	40.5	34.5	65.8	71.0	59.3
7/6/2016	12:41:00 AM	51.5	52.5	50.7	46.0		48.2	43.6	42.5		46.4	-	48.2	51.2	-	37.1	46.7	34.8	66.3	71.9	60.9
7/6/2016	12:42:00 AM	51.5	56.5	50.7	44.4		46.6	42.2	42.4		45.5	-	49.3	57.2	-	36.1	49.4	33.4	66.3	71.1	61.6
7/6/2016	12:43:00 AM	51.5	52.2	50.6	45.9		47.9	44.1	42.6		46.4	-	49.7	54.8	-	35.2	41.7	33.3	66.7	71.0	60.8
7/6/2016	12:44:00 AM	51.5	52.3	50.8	47.1		50.0	44.1	41.7		42.8	-	49.6	53.5	-	35.6	41.2	33.0	66.0	70.6	61.5
7/6/2016	12:45:00 AM	51.8	53.4	50.8	46.6		51.6	43.7	42.6		44.4	-	49.7	53.2	-	36.0	48.7	33.1	65.7	69.4	60.6
7/6/2016	12:46:00 AM	51.5	52.3	50.8	44.4		46.3	42.1	42.9		45.3	-	48.2	55.6	-	35.6	41.9	33.3	65.4	69.0	62.1
7/6/2016	12:47:00 AM	51.6	52.6	50.8	43.9		46.1	41.9	42.4		43.7	-	46.2	50.3	-	36.0	39.9	33.9	66.1	69.3	61.8
7/6/2016	12:48:00 AM	51.6	52.7	50.8	44.8		47.1	42.3	42.5		43.9	-	46.6	52.0	-	35.4	38.4	33.3	66.4	71.3	62.0
7/6/2016	12:49:00 AM	51.5	52.4	50.7	46.1		59.1	42.9	44.2		47.2	-	46.1	48.8	-	35.0	43.5	33.0	65.9	71.0	59.9
7/6/2016	12:50:00 AM	51.6	52.4	50.7	44.4		46.4	42.4	44.3		47.2	-	46.9	51.2	-	36.8	43.5	32.5	65.2	70.6	60.6
7/6/2016	12:51:00 AM	51.5	52.5	50.7	47.4		56.9	42.1	43.0		44.5	-	47.9	52.6	-	36.8	42.3	33.4	65.3	68.9	61.4
7/6/2016	12:52:00 AM	51.4	52.3	50.7	51.3		58.9	44.2	44.2		49.2	-	45.9	48.5	-	34.7	37.1	32.6	67.1	72.4	61.7
7/6/2016	12:53:00 AM	51.6	52.4	50.9	46.0		48.0	44.2	42.6		44.0	-	46.5	50.3	-	34.5	36.4	32.9	66.7	71.4	61.3
7/6/2016	12:54:00 AM	51.3	52.1	50.7	44.7		46.3	43.0	43.2		45.8	-	46.2	49.4	-	34.7	39.2	33.0	66.6	72.1	61.5
7/6/2016	12:55:00 AM	51.3	52.1	50.6	44.2		46.3	43.0	43.0		44.5	-	46.2	49.0	-	35.4	40.2	33.5	66.3	70.9	60.3
7/6/2016	12:56:00 AM	51.3	52.2	50.6	44.7		47.5	43.0	42.5		43.8	-	47.0	51.9	-	35.2	39.6	33.1	65.6	71.3	60.5
7/6/2016	12:57:00 AM	51.4	52.3	50.6	45.1		47.2	43.2	42.8		44.9	-	47.8	56.0	-	34.7	39.4	32.7	66.5	72.0	55.9
7/6/2016	12:58:00 AM	51.5	52.4	50.8	44.7		46.7	43.0	43.6		45.9	-	47.5	51.8	-	35.1	43.2	32.7	66.1	72.7	60.0
7/6/2016	12:59:00 AM	51.7	52.9	50.8	44.8		46.9	42.8	45.1		51.4	-	46.2	52.0	-	35.3	38.5	33.3	65.5	70.6	61.7
7/6/2016	1:00:00 AM	51.8	53.3	50.9	44.6	46.6	46.7	42.4	44.7	47.4	53.1	-	46.8	58.1	-	34.7	43.2	32.7	65.1	70.2	60.9
7/6/2016	1:01:00 AM	51.7	52.7	50.9	46.6		48.9	44.4	44.3		47.0	-	46.2	53.8	-	34.3	39.7	32.2	65.6	69.7	59.6
7/6/2016	1:02:00 AM	51.9	52.8	51.1	47.0		49.7	44.6	45.9		48.1	-	45.1	51.1	-	33.9	37.7	31.9	65.8	71.0	59.5
7/6/2016	1:03:00 AM	52.4	58.7	50.9	45.4		48.3	43.6	50.1		70.6	-	47.8	63.8	-	34.8	40.2	32.6	65.3	68.3	62.6
7/6/2016	1:04:00 AM	54.5	61.7	51.4	44.1		46.7	41.6	46.5		50.0	-	48.6	65.8	-	34.0	40.0	31.9	65.8	70.1	62.5
7/6/2016	1:05:00 AM	52.0	53.0	51.2	43.6		45.4	41.4	45.9		49.1	-	59.6	74.4	-	35.0	39.1	32.6	65.1	68.4	60.8
7/6/2016	1:06:00 AM	52.0	53.3	51.1	45.1		48.7	41.1	48.6		63.6	-	58.4	72.0	-	34.0	39.0	31.5	65.7	68.2	62.6
7/6/2016	1:07:00 AM	52.1	53.2	51.3	46.7		49.1	44.3	47.8		51.8	-	46.7	51.7	-	34.0	36.5	32.2	66.0	70.1	62.5
7/6/2016	1:08:00 AM	52.0	52.8	51.0	48.3		50.4	46.1	49.8		70.9	-	45.5	55.9	-	41.4	54.4	32.7	66.0	70.4	60.6
7/6/2016	1:09:00 AM	51.8	52.5	51.1	48.5		50.8	46.1	48.1		55.9	-	48.0	52.7	-	36.4	43.4	32.2	65.5	69.4	61.7
7/6/2016	1:10:00 AM	51.8	52.5	51.0	47.4		49.6	45.3	46.7		49.2	-	47.1	54.0	-	34.0	37.2	32.1	65.9	69.5	62.5
7/6/2016	1:11:00 AM	51.7	52.5	50.9	48.1		49.7	46.0	48.2		61.5	-	48.3	53.9	-	34.2	40.5	31.8	65.7	70.0	62.2
7/6/2016	1:12:00 AM	51.7	54.3	50.9	49.7		51.6	46.5	47.4		49.9	-	47.4	57.8	-	35.0	41.4	33.0	65.6	70.4	61.9
7/6/2016	1:13:00 AM	51.6	52.5	50.7	46.7		50.4	42.6	45.8		50.1	-	48.2	57.0	-	34.3	41.8	31.6	65.1	70.5	60.2
7/6/2016	1:14:00 AM	51.7	52.8	50.9	48.0		50.1	45.8	47.3		57.8	-	46.2	54.0	-	34.5	44.0	31.9	66.1	69.1	61.3
7/6/2016	1:15:00 AM	51.8	52.9	50.8	45.5		48.6	43.0	49.0		54.3	-	47.7	52.1	-	34.1	41.0	32.5	66.1	70.3	61.1
7/6/2016	1:16:00 AM	52.1	53.2	51.2	44.9		47.0	42.9	48.9		54.6	-	53.4	63.1	-	34.1	40.2	32.2	65.3	69.2	61.3
7/6/2016	1:17:00 AM	52.0	52.8	51.1	44.7		46.7	42.8	50.4		55.4	-	50.3	60.8	-	35.0	42.2	31.8	64.8	69.7	61.1
7/6/2016	1:18:00 AM	52.8	54.5	51.4	45.0		47.5	43.2	50.4		54.5	-	46.0	56.0	-	34.3	37.9	32.1	65.1	69.2	61.8
7/6/2016	1:19:00 AM	52.0	54.1	51.1	44.9		46.9	43.1	49.5		53.7	-	46.4	50.2	-	34.6	40.5	32.3	66.1	70.6	62.1
7/6/2016	1:20:00 AM	52.4	54.7	51.2	45.5		47.7	43.2	49.6		53.7	-	46.2	51.4	-	33.7	36.3	31.8	66.1	74.2	61.4
7/6/2016	1:21:00 AM	51.7	52.6	50.8	46.1		48.6	44.1	50.3		55.1	-	47.2	51.0	-	33.9	47.1	31.6	65.7	76.7	59.6
7/6/2016	1:22:00 AM	51.8	54.9	51.0	49.8		53.3	47.2	50.5		55.6	-	45.6	50.4	-	34.3	39.2	32.3	65.8	71.8	60.2
7/6/2016	1:23:00 AM	51.5	52.3	50.7	53.4		56.3	51.0	49.5		53.9	-	45.8	50.5	-	34.3	37.9	32.3	66.4	71.3	61.5
7/6/2016	1:24:00 AM	51.6	52.4	50.9	51.0		53.5	48.3	50.4		56.8	-	47.7	54.4	-	34.0	37.4	32.3	65.6	76.6	59.5
7/6/2016	1:25:00 AM	51.5	52.4	50.8	49.1		51.9	46.4	51.2		56.8	-	47.0	50.9	-	34.8	37.1	33.0	65.2	73.4	59.8
7/6/2016	1:26:00 AM	51.6	52.5	50.9	47.7		50.2	45.5	50.0		53.9	-	45.9	50.2	-	34.6	38.5	32.9	65.6	75.2	61.8
7/6/2016	1:27:00 AM	51.6	52.6	50.8	47.3		49.6	45.2	50.4		54.2	-	45.4	51.4	-	35.1	41.0	33.0	65.3	73.2	60.8
7/6/2016	1:28:00 AM	52.0	55.0	51.1	46.4		49.4	43.2	51.8		56.6	-	44.7	49.4	-	34.6	38.1	32.1	65.9	72.2	61.4
7/6/2016	1:29:00 AM	51.7	53.6	50.9	50.7		62.5	43.7	43.0		45.0	-	45.3	51.9	-	33.6	42.0	31.5	65.1	70.2	61.9
7/6/2016	1:30:00 AM	51.7	54.3	50.9	45.1		47.1	42.0	43.6		49.3	-	45.4	50.5	-	33.7	40.4	31.9	65.4	73.5	61.8
7/6/2016	1:31:00 AM	51.9	52.8	51.0	44.2		47.9	42.3	43.2		48.4	-	46.7	50.2	-	33.3	37.4	31.5	66.1	74.7	61.0
7/6/2016	1:32:00 AM	51.8	52.5	50.9	45.2		49.9	42.2	43.8		47.0	-	49.7	59.8	-	36.0	50.1	31.5	65.3	70.3	62.2
7/6/2016	1:33:00 AM	51.8	52.6	50.9	44.3		47.0	42.2	43.9		49.6	-	46.6	51.6	-	40.0	54.0	31.9	64.9	69.4	61.3
7/6/2016	1:34:00 AM	51.8	52.8	51.1	44.6		48.0	41.2	43.7		45.2	-	46.9	50.9	-	34.6	37.2	32.5	65.3	71.0	61.9
7/6/2016	1:35:00 AM	52.9	64.2	51.1	44.8		50.3	42.2	43.9		46.2	-	47.1	57.9	-	34.6	46.0	31.5	65.3	69.9	61.3
7/6/2016	1:36:00 AM	52.0	56.5	51.2	48.3		59.9	42.6	44.4		47.6	-	46.4	50.0	-	34.3	37.0	31.9	65.7	70.1	60.5
7/6/2016	1:37:00 AM	52.3	58.1	51.1	47.5		57.7	43.8	45.4		48.4	-	47.4	57.6	-	35.1	45.7	31.8	65.2	69.8	60.8
7/6/2016	1:38:00 AM	52.1	56.7	51.1	45.5		48.2	43.4	49.4		60.8	-	47.6	54.6	-	38.5	46.0	34.8	65.3	69.5	61.1
7/6/2016	1:39:00 AM	51.8	53.1	50.9	46.1		49.0	44.1	49.7		60.9	-	46.7	50.6	-	35.2	41.3	32.7	64.9	68.3	61.1
7/6/2016	1:40:00 AM	51.6	52.4	50.8	44.6		46.5	41.8	44.1		46.6	-	45.0	51.0	-	34.9	43.7	32.5	65.2	68.6	61.4
7/6/2016	1:41:00 AM	51.7	53.1	51.0	42.7		44.6	40.8	43.6		47.6	-	44.4	47.2	-	34.5	38.3	32.3	65.2	69.0	61.6
7/6/2016	1:42:00 AM	52.0	53.9	51.2	42.8		44.5	41.2	43.9		48.3	-	45.8	51.8	-	34.7	39.2	32.6	65.7	70.2	62.2
7/6/2016	1:43:00 AM	52.8	56.5	51.2	42.5		44.2	40.8	43.6		45.5	-	46.5	51.5	-	36.7	41.6	33.7	65.5	69.9	61.3
7/6/2016	1:44:00 AM	52.5	56.3	51.2	42.8		44.5	41.3	44.4		46.6	-	48.6	54.4	-	35.0	38.4	32.7	65.3	68.8	61.9
7/6/2016	1:45:00 AM	51.8	52.6	51.0	42.2		43.6	40.8	44.5		48.6	-	50.5	55.2	-	33.9	37.7	31.2	65.1	68.9	61.9
7/6/2016	1:46:00 AM	51.8	52.8	50.9	42.5		44.5	40.4	44.2		46.2	-	50.8	56.1	-	32.8	36.4	30.8	66.0	70.0	62.7
7/6/2016	1:47:00 AM	51.5	52.3	50.5	44.0		45.7	41.9	44.8		47.7	-	47.4	50.7	-	34.7	39.4	32.3	65.2	69.4	62.3
7/6/2016	1:48:00 AM	51.6	52.7	50.8	43.5		45.7	41.8	44.3		46.4	-	46.5	50.1	-	34.5	39.5	31.5	64.8	69.6	61.0
7/6/2016	1:49:00 AM	51.5	52.2	50.9	44.3		47.5	41.7	44.3		47.7	-	46.8	50.1	-	34.7	43.2	31.3	65.5	68.1	62.1
7/6/2016	1:50:00 AM	51.4	52.3	50.7	46.8		49.1	45.2	44.5		46.8	-	46.6	51.6	-	34.5	37.9	32.2	64.7	69.1	61.1
7/6/2016	1:51:00 AM	51.5	54.7	50.7	45.1		47.5	43.7	44.7		46.7	-	48.1	52.2	-	38.5	49.4	32.5	64.6	67.4	61.7
7/6/2016	1:52:00 AM	51.5	52.4	50.7	46.1		47.9	44.1	44.2		47.0	-	47.2	51.7	-	39.5	46.8	34.4	65.1	68.7	61.6
7/6/2016	1:53:00 AM	51.5	52.6	50.8	45.9		47.9	44.0	45.2		47.2	-	46.7	52.1	-	39.5	43.8	34.9	65.2	68.2	61.5
7/6/2016	1:54:00 AM	51.5	52.4	50.8	45.8		47.1	44.1	45.8		47.7	-	50.0	57.1	-	38.9	45.2	34.3	65.5	68.7	62.9
7/6/2016	1:55:00 AM	51.5	52.3	50.6	45.6		47.1	44.0	45.9		47.4	-	53.3	65.7	-	38.5	45.6	34.2	64.6	67.8	61.5
7/6/2016	1:56:00 AM	51.5	52.1	50.7	45.7		48.8	43.4	46.1		49.3	-	50.7	59.9	-	38.8	46.6	33.9	65.2	69.1	62.9
7/6/2016	1:57:00 AM	51.4	52.2	50.7	47.3		50.9	45.3	44.0		46.3	-	45.8	48.9	-	36.1	43.4	33.1	65.3	70.4	62.0
7/6/2016	1:58:00 AM	51.5	52.4	50.8	46.6		50.8	44.5	43.8		46.5	-	46.7	54.6	-	35.6	44.1	31.8	65.0	68.3	62.7
7/6/2016	1:59:00 AM	51.4	52.2	50.7	45.4		47.1	43.4	44.4		47.3	-	45.4	48.9	-	33.1	39.1	31.5	65.1	68.3	63.0
7/6/2016	2:00:00 AM	51.4	52.1	50.8	44.3	45.6	46.0	42.8	44.6	42.6	48.0	-	48.2	54.1	-	33.5	37.8	31.5	64.8	67.4	62.2
7/6/2016	2:01:00 AM	51.5	52.1	50.8	44.2		46.1	42.9	44.1		46.9	-	49.3	55.1	-	33.0	37.9	30.8	64.7	67.1	61.6
7/6/2016	2:02:00 AM	51.4	52.3	50.7	44.7		47.7	42.3	44.2		46.3	-	49.3	54.2	-	34.3	37.4	32.2	64.8	68.5	61.4
7/6/2016	2:03:00 AM	51.4	52.3	50.7	43.7		46.8	41.5	44.4		46.3	-	48.3	53.6	-	33.9	39.8	31.9	64.6	67.3	61.7
7/6/2016	2:04:00 AM	51.4	52.3	50.3	44.4		49.8	41.7	44.9		46.8	-	47.6	52.2	-	34.0	38.0	32.3	64.9	68.0	60.7
7/6/2016	2:05:00 AM	51.3	52.1	50.5	42.8		46.4	39.7	43.6		45.8	-	48.3	52.3	-	33.6	40.7	30.8	64.9	68.7	62.1
7/6/2016	2:06:00 AM	51.3	52.1	50.5	41.8		44.1	39.7	43.7		46.2	-	47.8	52.8	-	34.8	39.3	31.9	64.7	68.8	60.9
7/6/2016	2:07:00 AM	51.4	52.4	50.7	41.6		44.4	39.8	43.8		47.0	-	48.0	51.9	-	33.2	38.0	30.4	65.6	68.6	62.7
7/6/2016	2:08:00 AM	51.4	52.1	50.7	42.7		48.8	40.1	43.1		45.7	-	48.2	51.5	-	32.1	35.3	30.0	64.8	67.7	62.8
7/6/2016	2:09:00 AM	51.4	52.5	50.7	42.6		44.7	40.5	44.1		45.7	-	49.3	54.1	-	32.6	46.1	30.3	64.9	69.1	61.8
7/6/2016	2:10:00 AM	51.5	52.3	50.6	41.9		43.8	39.9	43.5		46.5	-	46.2	51.1	-	32.1	37.0	30.0	64.9	69.2	62.2
7/6/2016	2:11:00 AM	51.4	52.2	50.8	41.0		43.2	39.1	42.6		48.8	-	46.4	51.8	-	32.6	38.1	30.3	64.5	68.7	62.3
7/6/2016	2:12:00 AM	51.5	52.3	50.8	40.3		41.9	38.6	42.7		44.9	-	47.3	52.6	-	31.8	37.9	29.8	65.0	69.5	62.3
7/6/2016	2:13:00 AM	51.6	52.4	50.8	40.5		42.7	38.5	42.1		44.8	-	47.6	51.7	-	32.4	41.0	29.1	63.9	66.8	61.9
7/6/2016	2:14:00 AM	51.5	52.3	50.7	42.7		50.1	40.0	43.2		46.2	-	48.2	55.3	-	31.7	41.1	29.1	64.2	67.9	60.7
7/6/2016	2:15:00 AM	51.5	52.5	50.7	42.0		43.7	40.0	44.8		46.5	-	46.7	50.3	-	31.9	44.4	29.3	64.9	68.0	62.3
7/6/2016	2:16:00 AM	51.4	52.1	50.7	40.3		41.8	38.2	43.7		46.0	-	47.3	53.6	-	31.0	33.7	29.5	64.3	66.9	61.3
7/6/2016	2:17:00 AM	51.6	52.4	50.8	39.0		41.9	36.9	43.1		44.6	-	47.4	51.7	-	32.3	39.5	29.8	64.4	67.9	61.7
7/6/2016	2:18:00 AM	51.5	52.5	50.8	38.7		40.8	36.8	42.4		44.7	-	46.5	54.3	-	33.2	37.4	31.6	64.4	67.3	61.3
7/6/2016	2:19:00 AM	51.6	53.1	50.8	39.5		40.9	38.2	42.6		44.5	-	44.8	48.9	-	32.5	36.1	30.4	64.5	67.1	62.1
7/6/2016	2:20:00 AM	51.5	52.3	50.7	40.8		42.9	38.7	42.8		45.6	-	48.6	52.9	-	31.8	38.1	30.3	64.6	67.8	62.2
7/6/2016	2:21:00 AM	51.5	52.3	50.8	41.2		43.1	39.5	42.9		45.1	-	49.2	52.9	-	31.6	37.9	29.1	65.2	69.5	62.4
7/6/2016	2:22:00 AM	51.5	52.4	50.7	40.4		41.9	38.9	43.1		47.1	-	48.3	53.4	-	32.5	37.5	30.3	64.1	68.2	62.1
7/6/2016	2:23:00 AM	51.5	52.2	50.7	41.3		43.8	38.7	42.5		44.9	-	48.8	52.5	-	33.4	35.8	31.2	64.8	68.0	62.2
7/6/2016	2:24:00 AM	51.5	52.3	50.8	42.1		47.9	40.1	42.7		44.8	-	49.8	54.5	-	32.5	36.6	29.8	64.5	67.1	62.7
7/6/2016	2:25:00 AM	51.7	52.7	51.0	43.2		49.3	41.0	41.9		43.9	-	47.5	53.4	-	31.3	34.8	29.5	65.1	67.8	62.3
7/6/2016	2:26:00 AM	51.7	54.7	50.8	44.1		46.0	42.0	42.9		45.8	-	48.1	52.9	-	31.3	39.3	29.1	64.2	66.6	61.2
7/6/2016	2:27:00 AM	51.7	58.4	50.8	45.4		48.4	43.7	43.0		45.1	-	47.2	52.1	-	31.0	34.3	29.1	64.5	67.3	62.6
7/6/2016	2:28:00 AM	52.9	60.7	50.8	45.6		47.9	43.3	43.1		45.8	-	47.4	53.0	-	30.9	37.8	28.6	64.5	67.0	60.4
7/6/2016	2:29:00 AM	51.7	52.5	51.1	46.2		48.4	44.4	42.4		44.6	-	53.1	61.5	-	31.9	43.3	29.1	64.1	67.2	62.1
7/6/2016	2:30:00 AM	51.7	52.4	50.8	46.9		48.7	45.3	42.7		44.6	-	50.1	58.6	-	34.7	46.6	29.6	64.5	67.1	62.6
7/6/2016	2:31:00 AM	51.5	52.4	50.8	46.2		47.7	44.6	41.9		44.2	-	47.1	51.1	-	30.9	33.5	29.1	64.5	67.2	62.5
7/6/2016	2:32:00 AM	51.7	53.7	50.8	47.2		50.0	45.0	41.5		43.2	-	48.0	53.5	-	31.0	34.4	29.1	64.4	67.0	62.7
7/6/2016	2:33:00 AM	51.4	52.1	50.6	47.2		49.1	45.8	41.6		43.9	-	48.4	53.9	-	31.1	34.5	29.1	64.7	67.9	62.2
7/6/2016	2:34:00 AM	51.4	52.2	50.7	46.4		48.8	45.0	42.5		44.4	-	48.6	58.0	-	31.9	39.6	29.6	64.8	68.9	62.4
7/6/2016	2:35:00 AM	51.4	52.3	50.6	48.5		50.2	47.0	42.9		44.7	-	53.1	62.9	-	32.0	34.9	30.0	64.3	66.3	62.1
7/6/2016	2:36:00 AM	51.4	52.2	50.8	48.0		49.8	45.9	41.6		43.1	-	48.4	52.5	-	33.5	39.4	29.8	64.4	66.9	62.4
7/6/2016	2:37:00 AM	51.4	52.1	50.6	50.9		59.6	46.7	42.0		46.1	-	50.5	54.9	-	32.9	40.7	29.5	64.9	68.0	62.8
7/6/2016	2:38:00 AM	51.5	52.4	50.6	47.5		49.6	45.6	42.5		44.4	-	46.9	51.7	-	33.0	41.0	29.3	63.7	66.3	61.5
7/6/2016	2:39:00 AM	51.5	52.4	50.7	47.9		51.1	45.5	42.0		44.5	-	47.9	52.6	-	38.2	51.6	29.5	63.7	65.6	61.6
7/6/2016	2:40:00 AM	51.4	53.0	50.6	48.5		50.5	45.6	40.9		42.1	-	47.9	51.0	-	32.1	38.7	29.3	64.7	67.4	62.2
7/6/2016	2:41:00 AM	51.4	52.3	50.7	48.2		50.5	46.7	41.5		44.0	-	47.5	51.9	-	31.0	37.2	28.7	64.3	67.9	61.8
7/6/2016	2:42:00 AM	51.4	52.2	50.6	47.3		50.2	44.8	41.4		42.9	-	48.6	52.7	-	31.9	35.5	29.8	64.6	68.1	62.3
7/6/2016	2:43:00 AM	51.4	52.3	50.8	46.9		48.9	44.9	41.1		42.4	-	49.5	53.0	-	31.8	37.5	29.8	64.0	66.1	62.0
7/6/2016	2:44:00 AM	51.6	52.7	50.8	45.2		46.7	43.7	40.8		42.8	-	51.4	70.8	-	31.4	37.5	29.6	64.1	67.1	62.2
7/6/2016	2:45:00 AM	51.4	52.2	50.7	46.4		48.4	44.8	40.9		42.4	-	49.1	54.2	-	31.4	34.6	29.5	63.4	65.8	61.6
7/6/2016	2:46:00 AM	51.4	52.3	50.5

7/6/2016	3:03:00 AM	51.4	52.4	50.7	46.5		49.3	44.3	42.1		44.6	-	47.8	54.0	-	31.4	36.0	29.3	63.4	66.4	61.6
7/6/2016	3:04:00 AM	51.5	52.3	50.6	46.9		49.3	44.5	42.5		44.2	-	50.0	57.4	-	31.5	37.2	29.1	64.0	66.6	61.8
7/6/2016	3:05:00 AM	51.5	52.4	50.7	47.1		49.2	45.2	43.4		45.6	-	49.3	55.1	-	31.0	35.5	28.9	63.3	65.7	61.6
7/6/2016	3:06:00 AM	51.5	52.3	50.7	47.3		49.1	45.1	42.7		44.4	-	49.5	54.7	-	35.4	40.5	28.9	63.7	65.9	61.7
7/6/2016	3:07:00 AM	51.5	52.5	50.5	46.4		48.4	44.3	42.3		43.7	-	49.2	53.3	-	34.4	41.3	30.8	63.6	65.3	62.1
7/6/2016	3:08:00 AM	51.4	52.3	50.7	46.9		49.6	45.2	42.0		44.1	-	49.0	52.8	-	36.4	56.4	28.7	64.0	66.1	62.3
7/6/2016	3:09:00 AM	51.5	52.4	50.5	47.2		49.4	45.6	42.7		46.6	-	49.2	54.0	-	31.8	37.9	29.5	63.8	65.8	61.4
7/6/2016	3:10:00 AM	51.4	52.4	50.6	47.1		49.1	45.2	42.5		45.1	-	48.5	54.4	-	32.0	40.4	29.6	63.4	65.6	61.5
7/6/2016	3:11:00 AM	51.4	52.2	50.7	47.2		49.3	44.3	41.7		43.9	-	49.9	56.8	-	31.6	34.2	29.5	63.8	66.7	61.8
7/6/2016	3:12:00 AM	51.4	52.2	50.6	46.8		49.2	44.5	42.2		45.3	-	50.4	56.8	-	31.9	38.3	29.6	63.5	67.0	61.6
7/6/2016	3:13:00 AM	51.4	52.1	50.6	47.3		49.6	45.1	41.1		42.8	-	48.8	53.2	-	33.5	44.3	30.4	63.6	66.0	61.4
7/6/2016	3:14:00 AM	51.3	52.0	50.5	47.4		50.1	45.6	41.4		43.3	-	49.6	54.0	-	31.4	39.0	29.3	63.8	66.4	61.8
7/6/2016	3:15:00 AM	51.5	52.3	50.6	47.4		49.1	45.7	42.1		44.4	-	48.5	52.3	-	31.2	36.5	29.1	63.1	64.8	61.3
7/6/2016	3:16:00 AM	51.5	52.3	50.5	48.0		50.3	46.4	42.0		44.1	-	48.8	53.1	-	31.2	35.3	29.3	63.5	65.8	61.6
7/6/2016	3:17:00 AM	51.6	52.7	50.8	47.4		49.2	45.5	41.9		43.9	-	47.1	50.4	-	31.3	35.5	29.5	63.1	65.0	61.4
7/6/2016	3:18:00 AM	51.6	52.4	50.8	47.6		49.3	46.2	42.1		43.5	-	48.9	51.8	-	32.1	36.3	29.5	63.2	65.4	61.2
7/6/2016	3:19:00 AM	51.8	56.7	50.7	47.9		50.1	45.8	42.6		44.4	-	50.3	55.0	-	31.7	39.8	28.9	63.1	65.4	61.7
7/6/2016	3:20:00 AM	51.6	53.2	50.8	47.2		49.2	45.0	42.1		43.7	-	50.5	58.3	-	31.1	37.4	28.9	63.3	65.8	61.0
7/6/2016	3:21:00 AM	51.7	52.6	50.9	46.8		49.2	44.9	41.7		43.7	-	50.3	53.6	-	31.0	36.0	28.9	63.1	65.5	60.5
7/6/2016	3:22:00 AM	51.7	52.5	50.9	46.1		49.1	43.9	41.5		43.8	-	48.7	53.4	-	31.2	39.4	29.5	64.1	66.9	61.7
7/6/2016	3:23:00 AM	51.6	52.3	50.9	48.0		50.2	46.4	42.2		44.0	-	49.7	54.4	-	31.8	37.0	29.1	62.4	64.7	60.2
7/6/2016	3:24:00 AM	53.0	58.9	51.2	47.4		49.1	46.0	42.1		44.6	-	49.5	55.4	-	30.6	38.4	28.7	63.1	65.5	61.1
7/6/2016	3:25:00 AM	50.8	58.4	39.9	47.0		49.6	44.3	42.2		43.8	-	50.4	55.8	-	32.3	36.6	29.1	63.1	65.5	61.5
7/6/2016	3:26:00 AM	41.4	47.8	36.4	46.3		48.0	44.3	42.1		43.7	-	49.7	54.6	-	33.1	49.2	29.6	62.6	64.5	60.6
7/6/2016	3:27:00 AM	41.4	44.3	36.3	45.8		48.3	43.8	42.4		43.7	-	49.4	52.6	-	31.1	42.1	28.9	63.0	65.1	61.1
7/6/2016	3:28:00 AM	46.2	57.1	40.1	46.9		48.7	44.1	42.4		44.3	-	49.8	53.8	-	31.6	37.2	29.6	62.8	65.1	61.4
7/6/2016	3:29:00 AM	52.5	54.0	51.4	46.9		48.4	45.4	42.0		43.3	-	50.0	52.8	-	30.7	38.1	28.2	63.5	65.7	61.5
7/6/2016	3:30:00 AM	52.9	54.3	51.7	47.2		49.2	45.4	42.9		49.0	-	50.6	55.0	-	30.5	46.0	28.6	63.0	64.6	61.3
7/6/2016	3:31:00 AM	52.3	53.4	51.1	46.6		49.5	44.6	41.8		47.7	-	49.0	53.2	-	31.5	37.4	29.3	63.0	64.5	61.5
7/6/2016	3:32:00 AM	51.8	52.9	50.8	45.7		48.2	43.9	41.5		42.9	-	50.0	53.5	-	31.8	39.4	29.1	63.6	67.0	61.6
7/6/2016	3:33:00 AM	51.6	52.8	50.9	47.2		50.4	44.3	42.5		44.0	-	51.2	56.1	-	33.5	56.3	28.9	63.0	66.2	60.4
7/6/2016	3:34:00 AM	51.7	52.8	50.8	48.3		50.9	46.1	42.0		44.3	-	48.4	54.6	-	31.2	33.4	29.1	62.6	65.1	60.4
7/6/2016	3:35:00 AM	51.6	52.5	50.8	47.2		51.3	45.0	41.5		43.4	-	50.9	57.6	-	32.1	39.2	29.8	63.0	67.0	60.0
7/6/2016	3:36:00 AM	51.9	53.0	51.0	45.8		48.2	44.1	42.1		44.0	-	49.8	52.3	-	31.0	37.4	28.7	62.6	65.3	60.8
7/6/2016	3:37:00 AM	51.6	52.9	50.9	46.1		48.4	44.1	42.9		45.8	-	48.0	51.0	-	31.1	37.7	28.7	62.0	64.0	59.6
7/6/2016	3:38:00 AM	51.8	52.6	51.1	46.5		49.3	44.6	44.3		46.3	-	49.4	54.1	-	32.4	51.0	29.5	62.3	64.3	60.7
7/6/2016	3:39:00 AM	51.9	53.0	51.1	47.0		48.8	45.1	43.9		46.7	-	50.4	56.3	-	32.0	37.3	29.3	62.6	65.2	60.8
7/6/2016	3:40:00 AM	51.6	52.7	50.9	47.1		48.9	45.4	42.9		44.8	-	50.0	53.9	-	32.3	43.8	29.5	61.9	64.6	59.8
7/6/2016	3:41:00 AM	51.8	52.5	51.0	46.3		48.0	44.8	42.6		44.1	-	50.2	58.6	-	31.7	34.2	29.8	62.8	64.9	59.3
7/6/2016	3:42:00 AM	51.6	52.5	50.8	47.0		49.3	45.1	42.7		45.9	-	50.0	55.7	-	31.7	35.6	29.8	62.6	65.0	60.3
7/6/2016	3:43:00 AM	51.7	52.6	50.9	47.5		50.0	45.8	47.2		58.5	-	48.9	52.1	-	32.4	36.5	29.8	62.9	65.6	60.2
7/6/2016	3:44:00 AM	51.7	52.7	51.0	48.3		49.9	46.7	42.2		43.6	-	49.2	53.5	-	33.2	38.9	30.8	62.0	64.4	59.6
7/6/2016	3:45:00 AM	50.4	55.1	38.0	47.6		49.5	45.6	43.3		45.0	-	48.2	52.1	-	34.2	38.4	30.8	63.3	66.2	61.0
7/6/2016	3:46:00 AM	35.1	40.6	30.4	47.6		49.3	45.8	43.5		46.0	-	48.7	52.5	-	47.9	65.1	30.6	62.8	64.7	60.9
7/6/2016	3:47:00 AM	36.3	42.1	31.9	48.4		50.1	46.8	42.5		43.7	-	50.8	56.5	-	39.9	58.3	31.1	62.7	65.0	60.4
7/6/2016	3:48:00 AM	36.2	42.0	34.2	48.2		50.7	45.6	41.7		42.9	-	50.3	54.4	-	38.9	55.6	30.6	62.7	65.4	61.2
7/6/2016	3:49:00 AM	51.4	57.4	34.6	46.3		47.9	45.0	41.9		43.4	-	48.8	51.4	-	33.8	39.8	31.5	62.7	65.6	59.6
7/6/2016	3:50:00 AM	53.2	54.6	52.0	46.4		48.0	44.7	41.1		43.4	-	49.7	53.8	-	33.9	37.2	31.3	63.0	66.6	60.5
7/6/2016	3:51:00 AM	52.2	54.2	51.0	46.7		48.6	44.7	42.2		44.4	-	48.6	52.7	-	34.2	37.5	31.6	62.0	64.5	59.1
7/6/2016	3:52:00 AM	51.9	53.2	50.9	46.5		48.3	44.6	44.2		45.8	-	48.2	52.6	-	34.5	43.9	31.1	62.3	65.2	59.5
7/6/2016	3:53:00 AM	52.0	53.4	51.0	46.2		48.3	44.4	43.7		45.6	-	50.9	54.0	-	33.3	39.8	31.1	62.3	64.8	60.0
7/6/2016	3:54:00 AM	51.9	53.0	50.9	46.2		48.1	44.2	41.7		43.2	-	52.4	60.4	-	34.3	39.8	31.5	61.6	64.3	59.3
7/6/2016	3:55:00 AM	51.8	52.8	51.0	46.4		48.5	44.7	42.0		43.9	-	48.7	53.6	-	33.4	40.6	30.8	61.7	64.4	59.8
7/6/2016	3:56:00 AM	51.9	52.8	50.9	46.4		48.1	44.8	41.9		43.8	-	49.4	53.2	-	34.3	43.7	31.5	62.5	65.1	60.5
7/6/2016	3:57:00 AM	51.8	52.7	50.9	46.0		47.8	44.6	41.8		44.0	-	48.1	52.1	-	34.2	37.1	31.3	62.4	65.6	60.5
7/6/2016	3:58:00 AM	51.9	52.9	51.1	46.5		48.6	44.9	43.9		45.6	-	50.2	53.8	-	33.8	43.9	31.3	63.0	67.1	60.2
7/6/2016	3:59:00 AM	51.9	52.8	51.0	46.5		48.8	44.9	43.9		45.6	-	52.3	60.1	-	33.7	38.5	31.3	62.4	65.9	60.2
7/6/2016	4:00:00 AM	51.7	52.6	50.9	46.7	48.3	48.2	45.0	43.8	44.2	46.3	-	50.2	57.0	-	33.5	37.7	30.9	63.2	65.9	61.5
7/6/2016	4:01:00 AM	51.8	52.9	51.0	46.8		48.6	45.2	43.0		44.5	-	49.6	52.1	-	32.9	43.1	30.6	62.0	65.9	59.8
7/6/2016	4:02:00 AM	47.6	55.4	33.8	46.3		48.5	44.3	42.0		43.7	-	49.4	53.0	-	33.0	37.5	30.8	62.8	64.9	60.8
7/6/2016	4:03:00 AM	35.0	38.9	33.3	45.8		49.6	44.1	41.8		43.2	-	51.1	54.8	-	32.6	38.1	30.6	62.7	65.5	60.4
7/6/2016	4:04:00 AM	34.1	39.3	31.2	46.7		48.7	45.1	42.0		43.4	-	51.0	54.6	-	32.7	37.5	30.8	61.9	64.0	59.8
7/6/2016	4:05:00 AM	45.1	57.1	31.5	47.2		48.9	45.5	43.7		46.6	-	51.2	56.2	-	32.8	39.1	30.4	62.5	64.6	60.4
7/6/2016	4:06:00 AM	52.6	54.7	51.4	46.3		48.5	44.9	42.8		44.7	-	52.0	57.7	-	33.0	36.8	30.4	62.7	64.9	60.6
7/6/2016	4:07:00 AM	52.8	54.1	51.2	46.9		48.9	45.1	42.6		45.5	-	51.9	57.9	-	34.4	37.1	31.3	62.0	64.4	60.2
7/6/2016	4:08:00 AM	51.8	53.1	50.9	47.0		51.9	45.2	42.4		43.9	-	51.1	55.2	-	35.4	41.5	32.9	61.6	63.7	60.2
7/6/2016	4:09:00 AM	51.8	52.7	50.8	46.3		47.9	44.4	42.8		45.0	-	49.9	54.6	-	34.2	37.7	31.6	62.5	64.9	60.5
7/6/2016	4:10:00 AM	51.7	52.5	50.9	47.1		49.0	45.1	43.8		47.6	-	51.0	55.1	-	33.7	39.4	31.6	61.9	64.4	60.1
7/6/2016	4:11:00 AM	51.9	52.9	51.0	47.7		49.6	45.4	45.0		47.8	-	51.5	54.3	-	33.7	37.7	31.3	63.2	66.7	60.7
7/6/2016	4:12:00 AM	51.9	52.8	51.1	49.8		54.8	46.7	42.7		46.1	-	51.2	54.7	-	32.6	38.4	30.6	62.6	65.2	60.6
7/6/2016	4:13:00 AM	51.9	52.8	51.2	52.5		65.9	46.0	41.1		42.7	-	53.7	60.5	-	34.1	44.5	32.1	62.7	66.0	60.8
7/6/2016	4:14:00 AM	52.1	53.0	51.2	47.7		49.2	46.1	42.9		45.4	-	53.7	57.1	-	32.7	41.3	30.6	62.3	65.3	60.5
7/6/2016	4:15:00 AM	51.8	52.6	51.1	47.1		48.7	45.5	43.2		46.4	-	53.1	57.6	-	32.7	35.1	30.6	62.5	65.7	60.4
7/6/2016	4:16:00 AM	51.8	52.7	51.0	47.3		49.0	44.9	43.0		45.4	-	53.7	59.0	-	33.0	39.4	30.1	62.3	65.5	59.6
7/6/2016	4:17:00 AM	51.9	52.9	51.0	46.6		49.1	44.3	43.5		47.4	-	53.1	56.5	-	34.3	41.1	32.3	61.8	64.3	60.2
7/6/2016	4:18:00 AM	51.2	54.8	39.5	46.9		48.9	44.4	42.3		44.7	-	51.4	55.0	-	34.0	38.7	31.5	61.8	64.0	60.3
7/6/2016	4:19:00 AM	39.8	46.2	36.5	47.1		49.6	45.3	42.1		45.3	-	51.8	55.7	-	34.1	40.9	32.2	62.7	65.2	60.6
7/6/2016	4:20:00 AM	37.2	40.5	33.8	46.5		48.5	44.7	42.2		44.0	-	53.2	56.2	-	34.0	37.7	31.9	62.3	65.7	60.2
7/6/2016	4:21:00 AM	33.3	38.0	31.2	46.8		49.2	44.9	42.7		44.7	-	52.4	56.2	-	34.6	47.0	32.1	62.3	65.6	60.3
7/6/2016	4:22:00 AM	51.1	56.5	32.7	47.0		48.9	45.2	43.0		44.5	-	52.4	56.4	-	34.4	41.2	32.5	62.1	64.0	60.5
7/6/2016	4:23:00 AM	52.8	54.3	51.3	46.6		48.5	44.8	43.3		45.4	-	52.5	55.7	-	33.0	44.8	30.6	62.3	64.4	60.1
7/6/2016	4:24:00 AM	52.6	53.7	51.4	46.6		48.5	44.7	43.6		47.7	-	52.4	56.1	-	33.3	42.6	31.2	63.1	66.5	60.6
7/6/2016	4:25:00 AM	52.2	53.6	51.0	47.4		50.2	45.0	41.8		43.5	-	51.7	55.9	-	36.3	45.4	32.6	62.5	65.0	60.1
7/6/2016	4:26:00 AM	52.5	53.6	51.5	53.0		58.6	47.6	41.8		44.0	-	53.5	59.2	-	34.9	45.3	32.5	62.0	64.9	60.3
7/6/2016	4:27:00 AM	51.8	52.6	51.1	48.8		53.4	44.9	42.3		44.4	-	54.4	61.4	-	33.8	38.5	31.8	61.5	64.5	59.8
7/6/2016	4:28:00 AM	52.0	55.1	51.1	46.8		50.4	44.8	42.2		44.7	-	53.3	57.3	-	34.5	47.3	31.5	61.8	63.8	59.4
7/6/2016	4:29:00 AM	51.9	52.8	51.1	48.0		51.4	45.4	42.3		45.0	-	51.7	54.9	-	32.9	39.1	31.3	61.8	64.6	59.7
7/6/2016	4:30:00 AM	52.4	53.9	51.3	49.5		53.2	47.2	43.1		45.5	-	52.1	55.3	-	33.7	37.1	31.5	62.1	64.3	59.7
7/6/2016	4:31:00 AM	52.4	53.8	51.3	51.0		54.5	47.0	43.2		51.8	-	53.1	57.5	-	34.1	38.2	32.2	62.0	64.4	60.1
7/6/2016	4:32:00 AM	52.1	53.0	51.2	48.5		50.3	46.4	42.7		45.6	-	51.8	55.8	-	33.5	37.4	31.3	61.6	64.4	59.1
7/6/2016	4:33:00 AM	51.7	52.5	50.9	48.9		50.7	47.2	42.7		44.9	-	52.7	56.6	-	33.3	38.6	31.3	61.9	64.0	60.2
7/6/2016	4:34:00 AM	51.7	55.8	39.5	50.3		52.1	48.1	43.0		47.6	-	53.0	58.4	-	32.9	36.1	31.1	61.4	64.2	59.2
7/6/2016	4:35:00 AM	39.9	46.7	35.5	50.5		52.3	48.7	42.3		44.9	-	53.5	57.1	-	32.7	36.9	31.1	62.6	66.1	59.9
7/6/2016	4:36:00 AM	47.0	58.6	34.2	51.0		52.8	48.6	43.6		47.8	-	55.0	60.1	-	32.5	36.3	30.9	62.0	65.2	59.9
7/6/2016	4:37:00 AM	34.9	39.1	32.5	54.6		56.9	51.3	46.0		53.7	-	54.1	58.5	-	34.2	40.1	31.8	62.0	65.4	60.1
7/6/2016	4:38:00 AM	49.4	57.0	33.3	53.4		56.7	48.3	44.2		49.4	-	54.2	57.2	-	35.2	41.0	32.5	61.8	64.1	59.4
7/6/2016	4:39:00 AM	53.1	54.5	51.6	48.1		56.2	45.5	42.7		46.2	-	55.7	61.7	-	34.5	37.7	32.7	61.8	64.0	59.9
7/6/2016	4:40:00 AM	52.8	54.3	51.4	46.9		50.1	45.0	43.1		45.2	-	54.6	60.7	-	35.1	38.2	33.0	62.2	63.9	60.5
7/6/2016	4:41:00 AM	52.0	53.5	51.0	46.5		48.5	45.0	43.5		45.8	-	54.6	57.4	-	36.1	41.2	33.7	62.4	66.0	60.3
7/6/2016	4:42:00 AM	52.0	53.8	50.9	47.2		49.2	45.2	43.5		46.0	-	55.8	60.9	-	35.1	49.0	32.9	62.1	64.8	60.3
7/6/2016	4:43:00 AM	51.9	52.8	51.1	46.7		49.6	44.9	43.6		46.0	-	56.0	59.5	-	35.0	39.7	33.1	62.2	64.3	59.6
7/6/2016	4:44:00 AM	52.0	52.8	51.0	46.4		48.7	43.6	43.1		45.7	-	54.2	57.0	-	34.4	36.4	32.7	61.7	64.9	59.6
7/6/2016	4:45:00 AM	51.9	52.8	50.9	45.5		48.6	43.3	42.8		45.9	-	55.0	60.2	-	34.6	49.2	32.1	61.7	63.7	59.8
7/6/2016	4:46:00 AM	51.9	52.8	50.9	46.2		48.1	44.7	42.9		45.3	-	54.6	59.2	-	34.3	38.5	32.7	62.1	65.4	59.4
7/6/2016	4:47:00 AM	51.7	52.6	50.8	46.8		49.2	45.2	44.0		47.0	-	54.3	58.5	-	34.2	40.9	32.5	62.4	65.8	60.0
7/6/2016	4:48:00 AM	52.0	52.9	51.2	46.8		49.4	45.3	54.8		61.4	-	54.7	56.9	-	34.4	37.9	32.3	62.3	65.0	60.2
7/6/2016	4:49:00 AM	51.8	52.7	51.0	46.9		57.2	44.6	47.7		53.4	-	54.4	57.2	-	35.9	39.7	33.1	61.6	64.5	59.1
7/6/2016	4:50:00 AM	51.2	57.0	39.9	46.2		48.3	44.6	42.9		45.3	-	54.8	57.6	-	35.4	39.9	33.1	61.5	64.2	59.5
7/6/2016	4:51:00 AM	38.2	41.7	35.3	46.1		48.5	44.7	44.9		47.9	-	54.4	56.8	-	35.4	39.9	33.0	61.4	63.6	59.4
7/6/2016	4:52:00 AM	36.9	39.7	35.0	45.9		48.1	43.8	44.4		46.5	-	54.9	58.3	-	35.8	38.1	33.3	62.4	65.7	60.0
7/6/2016	4:53:00 AM	36.6	40.2	32.5	47.6		50.0	45.4	44.5		47.1	-	53.1	57.2	-	36.8	40.2	34.0	61.7	64.3	59.2
7/6/2016	4:54:00 AM	49.9	57.0	32.3	47.6		51.2	45.4	44.4		48.4	-	53.0	55.5	-	37.5	42.0	35.1	61.9	64.0	59.9
7/6/2016	4:55:00 AM	53.1	54.5	51.5	47.5		49.5	45.6	44.2		48.1	-	54.1	56.4	-	37.3	40.9	33.1	62.3	65.1	60.1
7/6/2016	4:56:00 AM	52.1	53.8	51.0	47.9		49.8	46.2	43.4		45.6	-	53.6	55.9	-	35.0	47.7	33.0	61.3	63.1	58.7
7/6/2016	4:57:00 AM	51.8	52.9	50.9	47.5		49.7	45.7	43.0		45.3	-	54.5	60.2	-	36.1	40.8	34.0	61.7	64.2	59.7
7/6/2016	4:58:00 AM	51.6	53.0	50.7	47.6		53.3	45.4	43.9		46.9	-	54.6	59.0	-	35.5	39.5	33.0	61.9	64.1	59.0
7/6/2016	4:59:00 AM	52.3	56.9	50.9	46.7		48.7	45.2	44.8		47.9	-	54.3	57.3	-	34.8	39.4	33.3	62.0	64.9	59.6
7/6/2016	5:00:00 AM	51.6	53.8	50.7	46.2	49.0	48.1	44.5	46.8	50.4	52.7	-	56.8	62.6	-	36.1	40.4	33.7	61.4	64.6	59.5
7/6/2016	5:01:00 AM	51.6	54.1	50.8	45.7		47.1	44.1	46.1		48.7	-	56.0	64.3	-	37.0	40.1	34.3	61.9	64.0	59.8
7/6/2016	5:02:00 AM	51.6	52.4	50.7	46.6		48.6	44.6	45.5		48.7	-	56.3	59.3	-	35.9	38.3	33.5	61.4	63.9	59.2
7/6/2016	5:03:00 AM	51.7	52.7	50.8	53.8		64.8	46.0	45.6		49.2	-	55.3	57.5	-	36.5	44.5	33.1	62.2	64.8	60.6
7/6/2016	5:04:00 AM	51.5	52.4	50.7	52.5		62.6	46.1	46.5		49.8	-	55.2	60.7	-	37.3	45.3	32.5	62.0	64.4	60.1
7/6/2016	5:05:00 AM	51.5	52.3	50.8	47.4		49.2	45.4	47.0		55.8	-	53.7	56.8	-	35.9	40.5	34.0	62.0	65.6	59.3
7/6/2016	5:06:00 AM	51.6	52.5	50.7	46.6		48.9	45.0	46.9		50.3	-	55.8	58.9	-	37.2	44.4	34.5	61.9	64.0	59.4
7/6/2016	5:07:00 AM	51.5	55.4	38.6	47.2		49.0	45.6	47.1		50.0	-	56.2	58.8	-	39.1	49.7	36.0	61.7	63.9	59.5
7/6/2016	5:08:00 AM	37.7	45.8	31.9	47.9		49.4	46.4	47.0		49.2	-	56.3	59.0	-	48.0	59.9	36.3	61.4	69.8	59.1
7/6/2016	5:09:00 AM	38.2	50.4	31.9	46.8		48.6	45.1	53.2		58.9	-	55.6	57.5	-	38.4	43.2	36.4	61.5	63.7	59.7
7/6/2016	5:10:00 AM	39.6	47.5	34.3	46.8		51.1	45.0	51.5		54.1	-	54.7	56.6	-	39.3	42.7	36.5	61.5	64.0	59.9
7/6/2016	5:11:00 AM	50.2	57.1	34.9	47.4		50.1	45.6	52.5		55.7	-	54.6	56.9	-	39.2	42.8	37.0	61.7	63.7	59.6
7/6/2016	5:12:00 AM	53.1	54.3	51.6	52.5	

7/6/2016	5:29:00 AM	39.6	46.2	35.3	49.9		57.9	47.2	48.9		51.5	-	57.5	59.6	-	42.6	57.0	37.7	62.3	64.9	60.5
7/6/2016	5:30:00 AM	37.0	41.5	33.5	48.1		49.8	46.3	52.1		60.6	-	57.7	60.1	-	38.2	41.2	36.0	62.2	66.0	60.1
7/6/2016	5:31:00 AM	50.3	57.0	34.5	48.6		55.2	46.3	55.3		61.5	-	56.6	59.5	-	37.6	41.3	35.8	61.9	64.8	60.2
7/6/2016	5:32:00 AM	53.1	54.5	52.0	49.0		52.9	47.0	49.8		53.2	-	57.7	59.7	-	40.1	51.1	37.4	61.9	64.1	60.0
7/6/2016	5:33:00 AM	52.7	56.9	51.2	49.0		53.3	47.2	49.3		52.1	-	57.6	60.2	-	55.9	77.4	40.9	62.0	64.3	60.4
7/6/2016	5:34:00 AM	51.9	53.2	51.0	49.1		50.9	47.3	48.5		51.0	-	57.3	59.0	-	48.5	50.3	47.5	62.1	65.0	60.1
7/6/2016	5:35:00 AM	51.6	52.6	50.9	49.7		51.8	48.1	48.1		58.0	-	60.1	71.5	-	48.5	49.6	47.2	62.3	65.2	60.6
7/6/2016	5:36:00 AM	51.7	55.6	50.9	49.5		51.0	47.7	48.6		51.5	-	57.9	64.5	-	48.9	57.6	46.9	62.6	65.3	60.0
7/6/2016	5:37:00 AM	52.2	56.1	51.2	48.8		50.5	46.7	51.5		55.4	-	57.1	61.0	-	42.7	50.4	40.1	62.4	65.0	60.4
7/6/2016	5:38:00 AM	51.8	53.2	50.7	48.4		50.4	46.3	48.8		51.4	-	58.8	68.2	-	41.9	44.6	40.4	62.0	64.5	60.0
7/6/2016	5:39:00 AM	52.3	55.9	51.1	48.1		54.2	46.2	47.7		52.9	-	58.5	64.8	-	41.7	47.2	40.1	61.2	63.6	59.3
7/6/2016	5:40:00 AM	51.7	56.5	50.9	48.0		52.7	45.9	48.4		55.1	-	57.3	59.8	-	41.5	43.8	40.1	61.3	63.1	59.3
7/6/2016	5:41:00 AM	55.9	76.4	50.9	47.6		50.0	45.7	47.8		53.5	-	59.3	67.2	-	41.1	44.0	39.2	61.5	63.3	59.3
7/6/2016	5:42:00 AM	52.2	66.5	50.9	48.3		52.2	45.9	47.9		54.1	-	57.3	61.9	-	42.1	56.5	38.3	61.6	63.8	59.4
7/6/2016	5:43:00 AM	52.2	62.8	50.9	48.4		50.5	46.1	47.8		51.3	-	57.1	59.2	-	42.4	50.0	40.9	61.8	63.9	60.1
7/6/2016	5:44:00 AM	53.2	63.8	51.4	47.1		48.9	45.3	49.4		55.0	-	58.1	64.7	-	41.3	43.5	38.7	61.9	64.6	59.7
7/6/2016	5:45:00 AM	58.4	79.9	51.3	47.2		49.2	45.5	50.6		59.1	-	58.2	61.7	-	40.9	44.1	38.9	61.8	64.3	59.9
7/6/2016	5:46:00 AM	57.4	73.9	50.9	48.7		57.0	45.5	50.9		56.4	-	57.0	60.3	-	39.9	49.4	38.0	62.9	66.3	60.6
7/6/2016	5:47:00 AM	52.1	56.4	51.0	48.7		51.3	47.0	50.8		61.0	-	56.6	59.6	-	39.7	41.2	38.5	62.6	65.9	60.2
7/6/2016	5:48:00 AM	51.5	52.7	50.8	48.4		50.2	46.7	50.7		57.9	-	58.0	61.3	-	40.2	45.1	37.9	61.8	64.4	60.1
7/6/2016	5:49:00 AM	51.6	54.6	50.8	48.5		50.4	46.9	51.2		65.0	-	57.1	63.2	-	40.0	45.2	38.4	62.1	64.3	59.7
7/6/2016	5:50:00 AM	52.1	60.0	50.8	49.0		54.0	47.2	50.9		62.9	-	57.7	62.5	-	42.1	52.4	39.5	62.0	64.1	60.0
7/6/2016	5:51:00 AM	52.0	62.4	50.8	48.4		50.8	46.8	51.7		55.3	-	57.3	60.8	-	41.2	44.2	39.7	61.7	64.3	59.8
7/6/2016	5:52:00 AM	51.8	55.5	50.8	49.2		56.8	46.5	53.8		58.7	-	57.6	62.4	-	41.9	46.1	39.7	62.2	64.7	60.1
7/6/2016	5:53:00 AM	52.0	53.2	50.9	50.3		60.8	47.0	53.6		58.3	-	58.0	62.4	-	43.1	60.6	39.4	62.2	64.4	59.6
7/6/2016	5:54:00 AM	52.5	61.3	50.9	49.4		51.5	47.1	51.5		56.0	-	57.8	61.3	-	42.2	48.8	40.0	61.6	64.2	59.7
7/6/2016	5:55:00 AM	52.0	55.2	50.7	48.2		50.5	46.2	49.6		54.2	-	57.4	60.4	-	52.9	72.9	39.9	61.8	65.0	59.6
7/6/2016	5:56:00 AM	52.1	54.2	51.2	47.9		50.0	45.9	50.9		53.3	-	56.7	59.7	-	51.7	71.1	41.2	62.0	64.0	60.3
7/6/2016	5:57:00 AM	52.9	55.0	51.4	49.0		53.7	46.4	53.1		56.7	-	57.4	60.8	-	44.8	55.4	40.0	62.0	64.1	60.0
7/6/2016	5:58:00 AM	53.0	55.1	51.4	51.3		57.6	47.1	52.6		55.8	-	56.7	59.8	-	40.0	46.5	38.0	61.7	64.5	59.7
7/6/2016	5:59:00 AM	52.2	54.5	50.7	48.8		52.2	46.8	52.9		64.4	-	56.8	65.0	-	42.4	62.5	38.0	61.5	63.9	60.0
7/6/2016	6:00:00 AM	52.1	55.7	51.0	49.4	58.5	55.4	46.1	54.2	51.4	57.8	-	57.2	64.5	-	58.0	77.1	38.1	61.7	63.7	59.2
7/6/2016	6:01:00 AM	52.3	55.3	51.1	53.7		60.6	47.9	55.9		69.0	-	59.3	70.4	-	60.1	78.6	36.9	61.2	63.0	59.2
7/6/2016	6:02:00 AM	52.5	54.6	51.2	48.8		51.6	47.3	61.0		76.0	-	57.5	68.8	-	58.3	77.7	37.0	61.7	64.4	59.0
7/6/2016	6:03:00 AM	52.0	53.3	51.1	49.4		53.1	47.1	53.7		57.9	-	56.4	61.5	-	39.6	43.7	37.9	61.7	63.7	59.7
7/6/2016	6:04:00 AM	51.9	53.5	51.0	56.5		67.3	48.0	54.8		60.2	-	56.7	61.0	-	40.2	48.4	38.1	61.3	63.4	59.2
7/6/2016	6:05:00 AM	51.9	53.9	51.0	47.9		51.7	46.0	54.6		61.3	-	57.8	70.1	-	40.0	46.0	38.4	62.0	63.9	59.5
7/6/2016	6:06:00 AM	52.0	55.7	51.0	50.9		58.3	46.2	53.9		61.5	-	55.4	61.8	-	40.9	53.0	38.9	62.1	64.3	60.5
7/6/2016	6:07:00 AM	51.9	52.8	51.1	54.9		63.0	47.2	52.6		62.3	-	56.7	60.9	-	43.0	59.0	39.8	62.4	69.2	59.7
7/6/2016	6:08:00 AM	51.9	52.9	51.1	48.5		51.4	46.7	52.2		55.6	-	56.1	59.0	-	43.0	48.0	40.7	62.2	65.5	60.2
7/6/2016	6:09:00 AM	52.1	54.6	51.1	49.9		55.8	46.4	50.4		53.7	-	57.1	60.0	-	45.4	56.8	40.1	61.8	64.0	59.7
7/6/2016	6:10:00 AM	51.7	53.4	50.9	50.5		53.6	48.7	49.0		51.7	-	57.8	64.2	-	43.5	57.2	39.0	61.9	64.1	59.8
7/6/2016	6:11:00 AM	51.4	52.2	50.5	50.4		52.2	48.5	50.6		53.9	-	56.6	59.3	-	42.3	53.8	39.7	62.4	65.0	59.9
7/6/2016	6:12:00 AM	51.5	52.3	50.7	51.4		57.8	49.5	48.7		53.8	-	56.8	61.9	-	41.9	54.0	39.7	62.2	64.3	60.1
7/6/2016	6:13:00 AM	51.6	52.8	50.8	57.2		63.5	49.9	50.4		69.2	-	56.7	61.4	-	41.1	45.7	39.1	61.8	64.0	59.5
7/6/2016	6:14:00 AM	51.5	52.4	50.7	49.6		51.6	47.7	47.7		60.9	-	56.5	61.2	-	41.2	50.3	38.6	62.0	64.3	60.3
7/6/2016	6:15:00 AM	52.6	59.1	50.7	49.0		52.6	46.6	48.6		66.3	-	56.6	62.0	-	40.6	45.8	38.7	62.3	65.7	60.1
7/6/2016	6:16:00 AM	51.6	54.8	50.8	55.9		60.3	50.2	49.8		61.8	-	59.8	70.5	-	40.0	44.5	38.3	62.4	64.4	60.2
7/6/2016	6:17:00 AM	66.5	83.6	50.5	50.2		55.0	47.8	48.1		59.1	-	58.1	64.0	-	40.5	44.3	38.6	62.8	64.9	60.8
7/6/2016	6:18:00 AM	52.3	57.3	50.8	49.3		51.0	47.2	49.0		59.8	-	57.9	63.4	-	40.5	45.8	37.5	61.8	63.5	60.1
7/6/2016	6:19:00 AM	51.6	53.0	50.8	52.6		62.5	48.6	47.0		50.3	-	56.7	67.8	-	39.8	46.1	37.8	62.4	65.5	59.8
7/6/2016	6:20:00 AM	51.6	52.5	50.7	50.3		52.9	48.5	48.7		53.1	-	57.6	67.6	-	39.3	48.0	37.4	62.5	64.4	60.5
7/6/2016	6:21:00 AM	51.8	55.6	51.0	50.3		53.4	48.7	47.7		60.0	-	56.2	59.2	-	39.3	42.3	37.8	62.5	64.4	60.7
7/6/2016	6:22:00 AM	51.9	56.2	50.9	58.0		63.1	51.2	47.3		50.2	-	58.6	65.6	-	39.8	44.5	37.9	62.5	65.2	60.5
7/6/2016	6:23:00 AM	51.7	56.8	50.8	52.8		60.4	49.2	48.6		54.3	-	59.3	66.3	-	39.5	44.6	37.7	62.3	64.9	60.6
7/6/2016	6:24:00 AM	52.4	57.1	50.8	52.1		57.5	50.1	48.8		53.2	-	55.4	59.7	-	39.7	46.1	37.7	62.3	64.6	60.0
7/6/2016	6:25:00 AM	52.0	54.9	51.0	55.6		60.9	50.2	48.4		55.4	-	57.7	63.5	-	41.4	52.4	39.0	62.5	65.0	60.2
7/6/2016	6:26:00 AM	52.3	57.3	50.8	54.8		61.7	50.3	47.2		50.3	-	57.5	63.5	-	41.9	45.6	39.4	62.8	65.7	60.7
7/6/2016	6:27:00 AM	51.9	56.2	50.7	51.6		54.1	49.4	48.0		53.1	-	56.6	59.9	-	40.3	42.7	38.5	62.1	64.8	60.2
7/6/2016	6:28:00 AM	51.7	55.2	50.6	54.5		61.7	51.4	48.7		59.0	-	57.4	60.1	-	42.1	49.6	39.5	62.4	64.6	60.3
7/6/2016	6:29:00 AM	52.7	57.5	50.8	55.5		62.4	51.9	46.4		51.1	-	55.4	58.7	-	40.9	54.0	38.0	62.7	65.7	60.9
7/6/2016	6:30:00 AM	51.8	55.1	51.0	57.5		65.2	52.4	48.0		58.4	-	56.5	60.6	-	41.5	52.8	38.9	61.9	64.0	59.7
7/6/2016	6:31:00 AM	52.5	54.2	51.2	56.8		65.3	52.7	47.4		50.0	-	57.1	69.8	-	40.7	43.5	38.7	62.4	64.4	60.4
7/6/2016	6:32:00 AM	53.4	60.1	51.5	60.0		67.1	53.9	48.4		58.2	-	56.7	63.8	-	41.5	54.4	39.5	62.5	64.8	60.7
7/6/2016	6:33:00 AM	53.8	57.7	51.5	55.0		58.9	51.9	54.7		71.4	-	55.4	59.0	-	41.0	52.7	38.6	61.8	64.7	59.9
7/6/2016	6:34:00 AM	56.4	72.3	51.5	55.4		58.9	52.6	50.2		65.6	-	56.5	59.5	-	41.6	49.3	38.9	62.2	64.1	60.6
7/6/2016	6:35:00 AM	53.5	71.6	51.1	62.1		69.9	55.0	48.6		63.6	-	56.4	61.5	-	43.7	60.4	37.7	62.2	64.0	60.4
7/6/2016	6:36:00 AM	51.6	56.4	50.9	58.9		65.6	53.5	47.8		49.9	-	56.2	59.5	-	40.5	46.1	38.0	62.2	64.7	60.4
7/6/2016	6:37:00 AM	53.1	57.4	51.2	60.9		67.8	55.7	47.9		51.1	-	56.2	62.0	-	41.2	46.1	38.4	62.3	64.4	60.5
7/6/2016	6:38:00 AM	53.2	57.3	51.3	60.2		67.4	54.1	49.3		53.7	-	55.8	59.3	-	41.4	44.2	39.7	62.3	67.0	60.4
7/6/2016	6:39:00 AM	53.3	60.8	51.5	59.6		68.3	53.7	50.5		58.3	-	57.1	60.5	-	40.9	45.8	38.9	61.8	64.0	59.7
7/6/2016	6:40:00 AM	53.4	55.5	51.6	58.0		64.1	52.8	50.5		56.4	-	61.2	75.6	-	40.8	43.6	38.9	62.5	65.2	60.7
7/6/2016	6:41:00 AM	52.8	56.6	51.4	61.5		69.8	53.8	50.3		55.3	-	56.1	59.6	-	42.0	52.6	38.9	62.5	68.3	60.9
7/6/2016	6:42:00 AM	53.5	56.6	51.6	64.6		76.3	56.4	47.6		50.6	-	56.8	59.9	-	41.9	49.1	39.5	62.5	64.7	61.2
7/6/2016	6:43:00 AM	53.3	57.2	51.7	59.5		64.9	55.1	50.7		56.0	-	57.5	61.4	-	41.8	48.8	39.5	62.3	64.8	60.9
7/6/2016	6:44:00 AM	53.4	57.4	51.7	62.2		71.3	54.7	48.2		52.7	-	57.2	60.8	-	42.2	46.2	40.1	62.8	65.8	60.7
7/6/2016	6:45:00 AM	53.9	59.1	51.4	56.9		66.6	53.1	47.1		51.7	-	57.5	61.4	-	42.5	47.0	39.8	62.7	65.3	60.8
7/6/2016	6:46:00 AM	52.8	57.8	51.1	64.4		72.9	58.0	51.0		58.8	-	56.3	58.6	-	42.0	50.5	40.1	62.4	64.6	60.1
7/6/2016	6:47:00 AM	52.5	57.3	51.2	62.6		70.0	54.4	51.3		59.0	-	56.9	59.3	-	42.4	47.8	40.2	62.3	64.6	60.4
7/6/2016	6:48:00 AM	52.9	58.8	51.2	58.9		65.3	53.6	49.9		54.5	-	56.3	58.4	-	43.6	55.8	40.1	62.6	64.1	61.1
7/6/2016	6:49:00 AM	53.6	58.9	51.5	59.1		64.6	55.3	49.1		54.7	-	60.4	69.5	-	41.7	52.8	39.7	62.6	64.3	60.7
7/6/2016	6:50:00 AM	52.8	56.6	51.3	62.1		67.7	56.7	49.1		55.3	-	56.9	63.1	-	41.8	45.6	39.6	62.7	65.6	61.1
7/6/2016	6:51:00 AM	52.9	57.1	51.2	60.8		69.1	56.1	50.6		56.4	-	56.9	62.1	-	42.2	45.3	39.5	62.2	63.7	60.7
7/6/2016	6:52:00 AM	53.8	60.8	51.3	63.0		69.8	56.4	47.5		55.0	-	56.3	60.4	-	42.2	48.0	39.4	62.5	64.3	60.9
7/6/2016	6:53:00 AM	52.0	56.5	51.0	61.0		68.3	53.1	47.4		55.3	-	56.4	59.0	-	40.6	47.3	38.2	62.7	65.0	60.6
7/6/2016	6:54:00 AM	52.4	57.0	51.2	55.1		62.1	51.8	47.7		52.9	-	56.5	59.4	-	40.5	47.1	38.4	62.3	64.0	60.6
7/6/2016	6:55:00 AM	52.3	58.7	51.0	59.8		69.9	52.1	50.1		56.0	-	56.1	61.2	-	40.2	45.2	38.3	62.9	64.8	60.0
7/6/2016	6:56:00 AM	52.7	57.2	51.4	63.0		74.4	54.0	48.2		52.6	-	56.3	59.4	-	46.6	54.1	39.2	63.0	65.8	61.2
7/6/2016	6:57:00 AM	52.6	57.5	43.2	64.2		74.0	52.1	49.1		55.0	-	55.9	59.8	-	40.7	46.9	37.9	63.3	65.4	61.7
7/6/2016	6:58:00 AM	45.9	55.7	38.5	62.7		70.3	54.1	52.1		57.8	-	55.5	60.0	-	44.6	50.9	39.1	63.1	66.1	61.2
7/6/2016	6:59:00 AM	47.3	56.5	40.9	58.1		67.5	52.7	58.5		63.0	-	54.6	59.6	-	42.8	50.9	38.4	63.7	66.6	61.3
7/6/2016	7:00:00 AM	47.6	54.0	40.5	64.3	58.7	75.7	54.0	56.7	55.9	61.0	-	54.9	57.4	-	43.0	51.8	38.4	62.7	64.3	61.2
7/6/2016	7:01:00 AM	46.3	57.9	40.0	61.0		70.4	52.6	66.3		70.6	-	57.7	63.7	-	49.8	69.8	39.5	63.0	64.8	61.1
7/6/2016	7:02:00 AM	45.6	55.1	39.3	55.3		64.4	52.1	56.5		62.7	-	56.9	59.9	-	41.8	52.0	38.0	63.1	65.3	61.1
7/6/2016	7:03:00 AM	46.9	55.7	39.0	59.8		68.2	51.9	51.5		57.6	-	55.2	58.9	-	42.5	57.7	38.6	62.5	66.1	60.4
7/6/2016	7:04:00 AM	42.5	52.9	37.2	54.5		58.7	51.7	58.6		64.2	-	54.5	58.3	-	44.7	50.1	39.5	62.5	64.8	60.5
7/6/2016	7:05:00 AM	46.9	56.8	39.2	60.5		72.3	51.5	62.8		67.3	-	58.5	71.6	-	43.3	48.7	39.9	62.9	65.3	61.1
7/6/2016	7:06:00 AM	42.0	52.3	37.2	63.7		72.9	53.1	59.8		65.7	-	54.1	58.1	-	46.0	58.0	40.1	63.0	66.8	60.4
7/6/2016	7:07:00 AM	48.9	57.8	39.7	53.6		58.9	50.8	58.6		64.0	-	54.8	59.7	-	43.8	56.5	39.9	63.0	65.6	60.7
7/6/2016	7:08:00 AM	45.3	52.2	40.0	60.5		70.0	49.6	50.5		54.0	-	55.1	59.1	-	42.8	51.5	38.2	62.7	64.9	60.9
7/6/2016	7:09:00 AM	47.1	52.4	40.6	59.1		69.6	50.3	51.3		61.3	-	56.1	60.2	-	44.7	50.8	40.7	62.2	64.6	60.3
7/6/2016	7:10:00 AM	47.6	55.5	39.5	53.3		60.4	49.3	50.0		54.6	-	56.0	74.9	-	42.6	48.8	40.1	63.1	71.4	60.3
7/6/2016	7:11:00 AM	51.0	61.6	40.6	59.0		65.6	53.2	56.8		63.2	-	54.3	72.8	-	45.7	53.4	40.0	62.8	65.0	60.9
7/6/2016	7:12:00 AM	42.6	52.5	38.3	55.4		64.4	50.6	62.0		66.1	-	57.7	69.1	-	42.9	48.8	39.4	64.0	65.8	61.7
7/6/2016	7:13:00 AM	42.7	49.1	38.4	61.3		69.6	52.2	62.8		68.3	-	55.5	60.1	-	40.8	44.5	38.6	63.1	66.1	61.3
7/6/2016	7:14:00 AM	44.8	54.2	39.2	57.2		65.3	48.0	62.6		67.2	-	55.4	58.6	-	45.2	52.4	39.1	62.9	65.2	61.0
7/6/2016	7:15:00 AM	45.5	53.0	38.9	63.0		70.5	49.9	59.1		67.7	-	56.4	61.2	-	40.9	49.4	38.5	64.0	67.0	61.0
7/6/2016	7:16:00 AM	58.3	68.7	39.2	55.4		62.4	48.3	54.3		58.2	-	56.0	61.2	-	41.4	45.0	39.1	63.1	64.6	61.3
7/6/2016	7:17:00 AM	51.6	61.0	40.5	61.6		70.2	50.6	51.8		57.1	-	55.8	59.5	-	42.3	51.3	39.4	63.4	65.2	60.7
7/6/2016	7:18:00 AM	45.5	58.9	39.3	57.6		65.3	52.4	53.1		61.5	-	59.1	69.6	-	43.6	49.9	38.6	63.3	65.9	61.6
7/6/2016	7:19:00 AM	45.5	54.9	39.5	60.6		70.2	50.3	49.8		59.2	-	58.9	69.8	-	41.9	48.1	38.7	62.9	64.8	61.5
7/6/2016	7:20:00 AM	49.2	58.0	40.2	53.6		58.7	49.7	49.2		55.1	-	57.7	64.7	-	45.1	57.2	38.9	63.3	65.3	61.6
7/6/2016	7:21:00 AM	54.0	56.5	52.6	58.7		70.2	48.6	47.9		53.6	-	57.7	68.5	-	44.3	51.1	37.9	64.0	69.2	62.2
7/6/2016	7:22:00 AM	53.4	56.8	51.5	57.0		65.8	49.3	46.7		51.9	-	55.2	59.8	-	40.8	49.0	37.8	63.4	64.9	62.1
7/6/2016	7:23:00 AM	52.5	57.3	50.9	60.6		69.8	46.5	48.0		51.4	-	56.7	67.9	-	50.2	68.1	40.5	63.4	65.3	62.0
7/6/2016	7:24:00 AM	53.8	61.2	51.2	52.6		58.3	46.6	47.4		51.5	-	54.4	57.0	-	63.7	80.7	46.5	63.2	66.7	61.3
7/6/2016	7:25:00 AM	47.4	56.4	40.1	47.7		52.2	45.2	48.4		53.3	-	55.3	60.7	-	67.4	87.8	50.8	62.5	65.4	61.1
7/6/2016	7:26:00 AM	41.8	47.1	38.1	48.0		54.1	45.1	47.0		54.1	-	55.5	64.5	-	71.4	93.3	55.4	62.8	64.7	61.3
7/6/2016	7:27:00 AM	42.7	52.4	38.1	48.5		58.1	46.1	47.9		52.2	-	55.4	64.9	-	66.8	73.6	58.2	63.4	65.7	60.8
7/6/2016	7:28:00 AM	44.4	50.2	39.4	56.9		63.5	49.4	48.1		53.9	-	55.9	65.2	-	68.4	81.1	56.3	62.6	64.1	61.1
7/6/2016	7:29:00 AM	43.4	54.0	39.7	61.5		70.2	50.5	47.8		53.3	-	57.1	73.2	-	69.6	75.9	63.1	63.2	65.2	61.4
7/6/2016	7:30:00 AM	52.9	71.7	41.8	66.6		76.8	48.9	47.2		52.9	-	56.7	63.4	-	66.7	75.7	54.2	63.6	65.1	61.3
7/6/2016	7:31:00 AM	57.1	69.1	43.0	60.4		68.8	49.8	46.7		52.5	-	56.3	62.2	-	64.8	80.7	51.0	63.6	65.8	61.2
7/6/2016	7:32:00 AM	48.3	58.1	39.3	53.4		60.8	45.7	47.0		52.9	-	55.3	59.4	-	68.6	81.2	49.5	63.2	65.4	61.3
7/6/2016	7:33:00 AM	52.0	68.1	41.5	54.5		62.7	45.9	49.8		56.0	-	55.8	60.0	-	67.7	75.3	51.0	63.3	66.2	61.2
7/6/2016	7:34:00 AM	53.6	55.2	52.3	56.3		66.5	46.0	48.5		53.5	-	58.3	74.8	-	75.5	85.0	64.6	63.6	65.9	61.3
7/6/2016	7:35:00 AM	54.2	60.9	51.3	51.9		58.8	45.6	50.2		58.8	-	55.5	65.6	-	75.4	84.0	72.0	63.6	66.6	61.6
7/6/2016	7:36:00 AM	53.2	58.1	51.6	60.1		72.5	45.1	53.4		61.7	-	59.3	72.7	-	74.5	81.4	61.0	63.7	65.8	61.9
7/6/2016	7:37:00 AM	52.7	64.2	51.3	61.1		71.3	49.9	56.0		63.4	-	56.5	61.7	-	67.3	78.3	59.6	63.6	65.5	62.3
7/6/2016	7:38:00 AM	51.7	57.4	43

7/6/2016	7:55:00 AM	44.9	53.5	38.5	53.5		65.4	47.2	48.2		53.3	-	56.7	61.0	-	74.0	87.4	52.7	63.5	66.0	61.8
7/6/2016	7:56:00 AM	45.9	57.1	38.4	49.5		54.6	46.8	47.6		51.8	-	57.1	63.7	-	72.5	88.3	36.3	63.6	65.4	61.6
7/6/2016	7:57:00 AM	48.3	55.4	38.3	55.0		67.1	46.8	48.5		51.0	-	57.0	63.0	-	46.4	67.4	35.0	64.1	66.1	62.4
7/6/2016	7:58:00 AM	52.8	54.6	51.6	58.2		66.0	46.6	48.2		50.8	-	57.5	75.3	-	38.2	52.1	34.8	63.9	65.9	62.3
7/6/2016	7:59:00 AM	54.4	61.0	51.6	60.4		67.6	49.3	51.1		57.6	-	54.5	57.5	-	37.9	41.7	34.9	64.1	66.1	62.1
7/6/2016	8:00:00 AM	54.0	60.3	51.8	56.4	56.6	68.3	49.4	50.2	49.2	54.5	-	54.2	56.2	-	40.3	58.6	35.3	64.4	67.1	61.5
7/6/2016	8:01:00 AM	53.8	60.3	51.8	50.1		57.5	46.4	51.6		70.5	-	54.4	61.1	-	46.7	62.5	35.3	64.2	66.6	62.1
7/6/2016	8:02:00 AM	52.9	59.7	51.8	56.4		64.5	47.7	47.8		50.0	-	53.8	59.2	-	48.5	65.1	35.5	63.9	65.8	62.1
7/6/2016	8:03:00 AM	51.2	57.8	45.5	51.6		58.0	47.3	47.6		50.2	-	56.9	68.8	-	48.2	67.0	35.5	64.1	66.7	62.5
7/6/2016	8:04:00 AM	49.1	59.1	43.1	58.3		67.7	46.0	47.0		54.8	-	54.4	68.5	-	44.2	58.9	36.1	64.0	67.7	62.4
7/6/2016	8:05:00 AM	49.9	56.0	44.8	52.8		60.0	45.7	48.4		59.7	-	52.6	54.8	-	40.9	59.4	35.1	64.1	66.3	61.9
7/6/2016	8:06:00 AM	51.6	57.9	48.2	56.1		68.7	45.1	48.4		58.0	-	55.9	68.9	-	44.3	62.4	34.9	64.3	66.5	62.2
7/6/2016	8:07:00 AM	50.9	59.6	47.7	57.2		64.5	47.9	46.1		49.3	-	63.6	88.9	-	44.4	60.0	35.1	64.0	66.3	62.1
7/6/2016	8:08:00 AM	52.2	59.5	48.0	51.1		56.6	48.2	49.3		65.6	-	52.4	61.0	-	41.7	58.0	35.3	65.0	71.9	63.1
7/6/2016	8:09:00 AM	50.5	57.6	47.9	56.4		63.3	48.5	47.1		53.9	-	53.5	61.0	-	41.8	58.3	35.0	64.6	67.3	62.6
7/6/2016	8:10:00 AM	55.2	69.1	53.0	55.5		64.9	50.3	46.2		60.1	-	53.7	56.9	-	63.4	78.9	36.2	64.4	71.3	62.2
7/6/2016	8:11:00 AM	55.6	64.1	52.7	59.0		67.4	49.0	49.3		64.4	-	52.9	56.0	-	53.0	71.9	35.6	63.8	66.4	61.8
7/6/2016	8:12:00 AM	53.7	58.0	52.1	56.6		67.5	49.3	47.0		50.7	-	54.2	59.1	-	41.5	55.9	35.4	64.3	66.1	62.6
7/6/2016	8:13:00 AM	53.7	60.3	52.2	56.4		63.1	50.0	47.7		52.5	-	54.3	60.9	-	49.7	62.2	36.4	63.8	65.8	61.9
7/6/2016	8:14:00 AM	54.4	60.6	52.0	54.1		62.3	49.4	47.4		50.9	-	54.5	59.8	-	46.7	59.6	36.9	63.5	65.4	61.9
7/6/2016	8:15:00 AM	54.5	61.4	46.9	60.5		67.5	49.1	47.8		51.9	-	54.7	58.7	-	51.2	67.0	37.0	64.3	67.0	62.5
7/6/2016	8:16:00 AM	48.6	59.3	43.9	57.6		65.2	48.2	48.1		62.0	-	55.6	61.3	-	60.4	74.2	37.8	64.4	66.2	63.0
7/6/2016	8:17:00 AM	50.1	60.5	43.2	50.9		54.4	48.3	47.8		59.4	-	55.9	61.5	-	66.6	86.3	37.0	64.7	66.6	62.8
7/6/2016	8:18:00 AM	54.7	69.9	43.6	51.1		53.6	47.5	46.9		50.3	-	56.0	61.4	-	54.0	71.7	35.8	64.5	66.5	62.8
7/6/2016	8:19:00 AM	49.0	59.0	43.9	51.0		59.9	47.2	48.5		57.2	-	56.3	60.2	-	45.1	63.9	35.6	64.3	66.7	62.2
7/6/2016	8:20:00 AM	47.1	58.9	44.2	51.4		55.1	48.3	46.6		53.1	-	56.4	61.0	-	48.9	66.5	35.0	64.7	73.9	62.5
7/6/2016	8:21:00 AM	46.4	53.9	43.5	51.4		54.9	49.2	46.1		53.1	-	55.9	60.2	-	49.2	69.2	35.1	64.0	66.8	62.0
7/6/2016	8:22:00 AM	52.6	55.8	43.4	49.8		52.8	47.5	48.1		57.8	-	55.8	58.5	-	46.5	69.0	36.0	63.6	65.6	61.7
7/6/2016	8:23:00 AM	53.2	55.2	51.7	48.6		50.5	46.9	46.7		51.8	-	55.9	65.1	-	38.0	48.3	35.0	64.7	67.1	62.2
7/6/2016	8:24:00 AM	52.7	53.6	51.8	48.4		51.0	46.6	45.8		50.1	-	57.7	65.7	-	37.7	51.3	34.5	64.2	68.0	62.4
7/6/2016	8:25:00 AM	52.8	57.7	51.7	49.5		52.2	47.1	46.6		51.0	-	55.7	60.4	-	50.7	72.4	34.9	64.5	72.2	62.1
7/6/2016	8:26:00 AM	52.7	61.6	51.3	50.6		58.2	46.7	52.0		62.5	-	56.0	59.5	-	37.4	41.2	34.9	64.3	68.3	61.2
7/6/2016	8:27:00 AM	52.9	57.4	51.7	51.8		59.7	48.3	48.1		52.3	-	55.8	58.3	-	41.8	58.0	35.5	64.5	68.5	62.9
7/6/2016	8:28:00 AM	55.0	71.1	42.1	51.7		54.7	48.9	47.0		53.2	-	55.8	59.9	-	42.5	60.5	35.0	65.1	67.3	63.3
7/6/2016	8:29:00 AM	51.4	65.4	40.1	52.3		62.2	48.7	50.0		60.1	-	56.4	61.2	-	39.9	59.2	34.9	64.7	67.2	62.5
7/6/2016	8:30:00 AM	62.0	87.7	39.1	59.3		65.6	49.0	49.0		60.1	-	57.2	60.9	-	48.3	71.2	35.6	64.9	75.7	62.9
7/6/2016	8:31:00 AM	48.6	56.2	39.2	55.6		63.5	50.0	49.2		55.0	-	57.3	60.5	-	39.8	59.2	35.0	64.7	68.1	62.4
7/6/2016	8:32:00 AM	44.3	52.5	37.8	62.6		78.0	48.3	47.3		52.0	-	56.7	59.8	-	46.8	64.5	35.3	64.8	68.1	61.9
7/6/2016	8:33:00 AM	43.7	54.5	37.2	51.5		61.2	46.9	52.5		67.7	-	57.5	62.1	-	53.5	69.2	36.1	65.0	68.1	62.1
7/6/2016	8:34:00 AM	51.4	56.7	40.7	47.7		51.7	45.4	53.3		66.0	-	57.3	60.2	-	54.2	69.2	36.6	64.9	68.5	62.9
7/6/2016	8:35:00 AM	52.4	58.7	51.4	47.5		49.8	46.0	49.4		61.9	-	57.9	60.7	-	52.1	70.2	34.9	64.9	68.8	62.7
7/6/2016	8:36:00 AM	52.4	56.2	51.5	65.2		82.4	46.2	48.9		60.5	-	61.5	72.2	-	42.6	59.8	35.0	65.7	69.5	62.4
7/6/2016	8:37:00 AM	54.1	68.3	51.6	48.0		56.2	46.1	47.2		53.3	-	58.4	61.8	-	41.4	59.4	34.8	65.8	69.6	62.9
7/6/2016	8:38:00 AM	52.9	57.2	51.6	52.2		59.4	46.0	47.2		50.9	-	57.9	60.7	-	40.0	55.8	35.4	65.0	67.7	63.6
7/6/2016	8:39:00 AM	59.7	69.4	51.8	51.9		59.8	46.7	46.9		52.2	-	58.4	60.8	-	42.5	59.2	35.7	64.4	66.7	62.3
7/6/2016	8:40:00 AM	52.5	55.5	51.4	54.4		60.0	49.4	47.6		52.7	-	58.5	62.3	-	41.8	57.4	36.0	64.4	67.3	62.7
7/6/2016	8:41:00 AM	52.6	55.9	51.2	53.5		62.2	47.5	48.5		56.1	-	57.3	59.7	-	38.2	44.8	35.4	65.5	70.2	63.1
7/6/2016	8:42:00 AM	52.1	53.6	51.0	50.2		52.1	48.3	48.6		53.5	-	57.8	60.3	-	37.7	47.9	34.8	65.6	68.7	62.7
7/6/2016	8:43:00 AM	50.7	65.7	43.0	50.8		55.1	48.8	46.9		55.1	-	56.9	59.4	-	39.1	55.3	35.1	64.5	66.8	62.6
7/6/2016	8:44:00 AM	44.3	50.4	41.3	53.1		59.4	50.2	46.8		50.1	-	56.5	60.0	-	38.2	50.2	34.8	65.2	67.5	62.8
7/6/2016	8:45:00 AM	43.1	49.6	40.9	52.2		57.0	48.9	47.6		55.6	-	58.1	63.8	-	40.3	61.9	35.3	64.5	68.0	62.2
7/6/2016	8:46:00 AM	46.6	56.6	41.6	50.7		52.8	48.9	51.6		59.6	-	56.9	61.7	-	48.8	66.2	35.3	64.9	68.3	62.7
7/6/2016	8:47:00 AM	59.9	75.5	41.1	50.7		55.8	48.5	48.9		56.7	-	57.4	61.1	-	39.7	53.2	35.5	64.4	67.7	61.4
7/6/2016	8:48:00 AM	50.4	59.1	39.7	50.3		54.0	48.3	50.8		61.1	-	57.3	60.7	-	38.2	48.5	35.0	64.2	66.4	61.3
7/6/2016	8:49:00 AM	56.0	76.2	51.1	51.2		58.0	47.5	48.7		55.0	-	58.0	60.7	-	42.7	57.0	35.5	64.7	67.0	62.3
7/6/2016	8:50:00 AM	53.3	69.2	50.9	55.5		61.7	48.3	49.3		54.4	-	57.7	62.4	-	38.3	46.6	35.0	66.2	69.2	63.2
7/6/2016	8:51:00 AM	53.0	57.1	51.3	52.4		57.6	48.7	49.9		58.5	-	57.4	60.2	-	42.6	63.2	35.4	65.2	69.2	62.6
7/6/2016	8:52:00 AM	52.7	56.8	51.1	62.2		70.7	51.2	48.0		51.1	-	57.5	60.1	-	39.7	54.0	35.6	65.0	67.6	63.0
7/6/2016	8:53:00 AM	52.4	55.3	51.2	57.0		64.9	50.0	47.5		57.5	-	57.2	60.4	-	43.1	56.0	35.7	64.5	68.1	62.1
7/6/2016	8:54:00 AM	53.8	61.1	51.6	57.5		73.8	49.1	57.0		66.5	-	56.9	59.8	-	44.9	66.0	35.7	64.9	67.8	62.4
7/6/2016	8:55:00 AM	52.4	57.3	51.1	57.4		78.3	49.0	51.7		60.3	-	58.3	62.2	-	40.5	52.0	35.1	65.3	68.8	63.1
7/6/2016	8:56:00 AM	53.4	61.1	51.2	61.8		80.0	49.1	51.8		65.7	-	58.9	62.3	-	39.3	48.9	35.5	65.1	67.3	62.6
7/6/2016	8:57:00 AM	56.2	63.5	51.4	63.0		74.7	53.4	49.5		54.5	-	59.4	61.2	-	41.6	62.9	35.3	65.0	67.6	62.7
7/6/2016	8:58:00 AM	54.4	63.2	43.3	62.4		72.6	53.3	49.7		53.2	-	58.2	61.3	-	43.2	56.3	36.0	64.9	68.0	62.2
7/6/2016	8:59:00 AM	49.2	58.0	43.8	59.6		69.8	51.1	48.5		51.9	-	59.1	61.3	-	57.3	70.6	36.0	64.4	67.0	62.2
7/6/2016	9:00:00 AM	46.6	59.4	42.7	60.9	62.3	69.1	53.1	47.8	51.7	52.1	-	58.0	61.0	-	38.2	45.2	36.0	65.3	67.7	61.8
7/6/2016	9:01:00 AM	60.6	73.6	42.0	60.1		70.4	54.5	48.3		50.3	-	58.4	61.1	-	39.3	53.7	35.6	65.4	71.2	62.9
7/6/2016	9:02:00 AM	51.4	69.8	41.0	61.6		78.0	53.1	48.1		50.7	-	57.8	64.3	-	43.9	56.1	35.4	65.8	71.9	62.0
7/6/2016	9:03:00 AM	55.1	66.5	50.2	60.7		69.4	51.4	49.2		58.8	-	57.6	62.5	-	43.0	61.6	35.8	65.5	69.4	62.7
7/6/2016	9:04:00 AM	52.0	56.6	50.8	58.8		68.3	51.2	50.2		55.9	-	56.6	58.7	-	40.7	49.9	36.3	65.1	67.4	61.8
7/6/2016	9:05:00 AM	53.4	55.6	51.5	64.1		85.7	51.0	49.6		53.9	-	58.0	62.0	-	38.2	50.3	35.4	65.0	68.1	62.0
7/6/2016	9:06:00 AM	53.0	57.1	51.7	58.4		67.2	52.3	48.9		53.0	-	56.6	61.4	-	51.3	67.7	35.6	64.9	67.4	62.9
7/6/2016	9:07:00 AM	53.1	56.8	51.6	61.0		71.3	50.6	49.5		54.0	-	56.4	58.1	-	47.7	63.0	35.3	65.2	68.4	62.7
7/6/2016	9:08:00 AM	59.1	69.3	51.8	57.4		66.8	49.9	49.8		54.1	-	58.1	65.0	-	40.9	52.7	35.5	65.4	68.5	62.8
7/6/2016	9:09:00 AM	53.0	58.0	51.4	62.1		73.2	50.1	50.2		55.2	-	57.1	59.5	-	39.9	53.5	35.4	65.1	69.4	62.3
7/6/2016	9:10:00 AM	54.3	64.7	51.5	60.9		74.6	53.8	59.1		69.5	-	59.7	69.2	-	39.8	51.7	35.4	65.5	68.6	61.3
7/6/2016	9:11:00 AM	52.6	53.8	51.7	61.9		72.8	55.5	58.3		72.2	-	58.9	65.7	-	37.9	51.5	35.3	65.3	68.5	62.5
7/6/2016	9:12:00 AM	52.6	54.2	51.6	63.2		76.5	58.6	48.4		52.7	-	57.6	60.6	-	39.0	53.6	35.4	65.5	69.1	62.7
7/6/2016	9:13:00 AM	54.8	64.9	51.7	60.5		63.1	58.2	48.0		53.5	-	57.0	61.6	-	42.0	58.8	35.1	65.6	68.3	63.1
7/6/2016	9:14:00 AM	56.4	71.6	40.8	64.2		79.3	56.7	50.1		60.4	-	58.2	75.5	-	52.8	70.7	34.9	65.4	69.4	62.7
7/6/2016	9:15:00 AM	45.3	60.4	39.6	77.1		90.2	57.5	48.5		53.9	-	57.9	76.3	-	41.5	55.4	35.4	65.4	68.7	62.5
7/6/2016	9:16:00 AM	45.2	58.7	41.4	62.3		73.4	54.5	48.4		51.3	-	58.3	61.6	-	43.7	61.0	35.5	65.3	68.5	63.1
7/6/2016	9:17:00 AM	48.7	69.3	40.2	59.1		73.5	54.3	49.5		56.3	-	58.1	65.2	-	37.0	39.1	34.5	65.0	68.2	63.1
7/6/2016	9:18:00 AM	46.7	57.8	39.7	62.3		76.7	54.6	49.6		56.8	-	57.9	60.2	-	38.4	52.6	35.4	65.7	69.4	63.1
7/6/2016	9:19:00 AM	53.5	58.9	49.7	66.1		75.4	59.2	49.2		53.7	-	57.9	61.7	-	36.8	42.2	34.9	65.3	68.6	62.5
7/6/2016	9:20:00 AM	53.1	55.5	51.5	67.6		87.7	52.6	56.6		64.2	-	57.9	61.5	-	49.9	74.2	35.0	65.3	68.9	62.8
7/6/2016	9:21:00 AM	53.5	56.4	52.4	65.1		77.5	57.2	57.8		69.0	-	56.9	59.7	-	39.6	51.6	34.9	65.9	68.8	62.9
7/6/2016	9:22:00 AM	53.7	56.1	52.4	62.7		78.5	52.0	48.0		52.4	-	56.9	59.2	-	53.1	73.7	35.8	65.6	68.9	62.1
7/6/2016	9:23:00 AM	53.8	59.4	52.5	60.1		72.4	49.3	48.8		54.9	-	58.7	64.2	-	45.1	62.9	35.4	66.1	72.1	62.8
7/6/2016	9:24:00 AM	53.4	59.7	52.3	52.9		65.4	46.7	54.6		65.7	-	58.8	61.9	-	43.6	61.1	35.7	65.8	80.4	62.4
7/6/2016	9:25:00 AM	53.8	56.8	52.3	53.9		60.5	49.0	51.7		62.4	-	58.9	65.1	-	41.3	56.0	36.2	68.4	72.4	62.0
7/6/2016	9:26:00 AM	54.9	64.3	52.9	52.1		59.1	48.5	49.5		53.5	-	61.0	69.1	-	44.2	57.0	36.0	66.2	71.3	63.1
7/6/2016	9:27:00 AM	54.5	59.9	52.7	49.5		53.8	47.0	48.6		50.7	-	59.0	69.5	-	44.7	56.4	35.5	66.8	71.3	63.7
7/6/2016	9:28:00 AM	54.5	66.6	52.6	55.4		62.7	50.0	48.6		53.5	-	63.6	73.0	-	41.2	55.8	35.6	66.0	69.8	61.2
7/6/2016	9:29:00 AM	54.3	56.8	52.7	51.7		57.2	47.8	47.3		51.2	-	73.8	90.7	-	42.0	55.6	35.7	65.6	72.0	62.7
7/6/2016	9:30:00 AM	54.6	65.7	44.6	52.9		58.3	47.5	49.0		53.5	-	57.9	61.4	-	39.5	53.6	35.5	75.9	95.2	63.6
7/6/2016	9:31:00 AM	48.0	55.3	43.0	54.6		60.9	52.0	49.8		55.0	-	58.1	62.8	-	43.3	59.6	35.8	65.6	69.8	63.0
7/6/2016	9:32:00 AM	46.8	54.0	43.7	53.4		57.5	50.4	53.1		65.7	-	57.8	61.2	-	42.2	55.0	35.5	66.1	69.3	62.2
7/6/2016	9:33:00 AM	48.3	58.2	43.1	55.1		62.5	50.8	49.2		57.9	-	57.5	59.7	-	42.6	59.2	36.2	64.7	68.0	61.8
7/6/2016	9:34:00 AM	48.6	56.0	45.7	53.8		60.3	50.5	50.0		54.0	-	58.5	61.7	-	40.2	50.9	35.4	64.9	68.4	61.1
7/6/2016	9:35:00 AM	50.2	56.6	43.2	54.0		58.4	50.8	48.8		52.0	-	57.7	62.3	-	41.2	54.5	35.1	65.5	69.2	63.0
7/6/2016	9:36:00 AM	61.8	76.9	51.6	51.8		56.2	49.8	48.8		55.2	-	57.6	60.7	-	38.4	48.4	35.3	65.0	69.7	61.6
7/6/2016	9:37:00 AM	66.9	79.5	53.6	52.2		61.3	48.7	48.0		52.1	-	57.6	60.8	-	39.1	50.3	36.2	65.1	70.2	61.5
7/6/2016	9:38:00 AM	54.3	56.1	53.2	52.6		59.1	48.5	49.8		55.4	-	57.6	61.0	-	40.6	52.8	35.4	64.5	67.1	61.0
7/6/2016	9:39:00 AM	54.2	56.7	53.0	54.6		61.0	48.9	48.6		55.0	-	56.8	59.9	-	39.8	57.2	36.0	65.3	68.0	61.8
7/6/2016	9:40:00 AM	54.1	57.9	53.0	51.4		58.0	48.1	49.4		53.8	-	57.2	60.3	-	41.2	54.6	35.8	65.0	68.6	62.1
7/6/2016	9:41:00 AM	53.9	58.3	52.7	52.2		56.1	49.9	49.7		53.5	-	58.0	62.3	-	51.2	68.4	36.4	65.0	68.7	60.8
7/6/2016	9:42:00 AM	54.0	55.5	52.9	53.1		60.8	49.5	50.4		59.4	-	57.9	61.7	-	54.9	72.8	36.2	65.6	72.6	62.0
7/6/2016	9:43:00 AM	62.9	75.8	52.8	51.8		56.0	49.3	50.5		57.5	-	57.1	59.4	-	41.7	58.2	36.0	64.9	76.0	60.6
7/6/2016	9:44:00 AM	62.6	74.8	53.0	51.9		57.4	48.9	51.3		56.2	-	58.1	71.6	-	49.4	62.9	36.2	66.3	72.4	62.7
7/6/2016	9:45:00 AM	60.9	71.2	53.5	55.6		61.0	50.7	48.1		51.1	-	58.2	67.7	-	53.1	70.0	36.1	65.3	72.5	61.0
7/6/2016	9:46:00 AM	54.3	58.4	52.9	57.8		66.2	52.7	47.6		50.3	-	58.1	62.7	-	43.8	55.6	36.3	65.8	69.8	62.5
7/6/2016	9:47:00 AM	51.5	55.9	44.8	56.1		61.0	52.3	48.2		51.5	-	58.0	60.5	-	42.7	54.5	35.5	65.6	72.4	62.1
7/6/2016	9:48:00 AM	47.9	54.0	44.0	59.7		71.1	52.5	51.0		60.2	-	57.2	61.2	-	43.7	58.7	36.3	65.4	69.5	62.1
7/6/2016	9:49:00 AM	46.6	50.3	44.7	54.9		62.1	50.4	48.9		55.0	-	57.2	60.9	-	42.8	51.7	37.2	65.6	69.0	61.7
7/6/2016	9:50:00 AM	47.1	51.4	44.9	57.7		66.7	50.7	48.6		52.5	-	58.7	66.0	-	49.6	64.8	35.8	66.0	70.9	63.0
7/6/2016	9:51:00 AM	56.1	64.3	44.8	55.8		64.9	50.8	48.6		52.5	-	57.1	72.6	-	48.4	64.2	36.0	65.3	70.3	59.1
7/6/2016	9:52:00 AM	58.6	70.2	53.2	52.6		54.8	50.1	52.8		63.4	-	56.7	59.1	-	47.9	66.4	35.7	65.7	71.3	61.1
7/6/2016	9:53:00 AM	56.3	70.3	54.1	53.2		57.4	50.7	55.3		72.6	-	56.9	60.0	-	51.4	64.3	36.2	65.7	70.0	62.4
7/6/2016	9:54:00 AM	55.5	63.5	54.1	55.4		60.9	51.0	59.6		73.1	-	57.4	60.9	-	41.7	57.9	36.0	65.6	69.5	62.1
7/6/2016	9:55:00 AM	55.5	57.8	53.9	55.7		61.8	52.2	54.3		72.3	-	58.0	60.6	-	41.4	51.8	36.0	64.9	69.2	60.7
7/6/2016	9:56:00 AM	55.2	60.7	53.0	54.7		60.3	51.5	50.0		67.3	-	56.5	60.3	-	40.6	52.7	36.0	65.2	69.4	61.1
7/6/2016	9:57:00 AM	57.6	63.2	53.1	55.7		62.2	50.1	49.0		63.7	-	56.9	60.7	-	39.2	47.3	36.1	65.9	69.3	63.0
7/6/2016	9:58:00 AM	54.2	56.0	53.0	51.9		55.6	49.3	48.6		59.5	-	57.8	62.8	-	38.1	42.3	35.5	65.1	69.2	61.5
7/6/2016	9:59:00 AM	55.9	62.4	53.4	57.4		68.3	49.5	49.7		59.3	-	57.9	62.8	-	41.8	53.3	36.2	65.4	70.0	61.1
7/6/2016	10:00:00 AM	57.9	68.6	53.4	58.1	64.2	64.1	53.4	48.0	53.3	55.4	-				39.9	52.5	35.8			
7/6/2016	10:01:00 AM	56.5	62.1	53.6	66.0		75.0	53.6	50.8		60.5	-				40.3	57.6	35.7			
7/6/2016	10:02:00 AM	54.0	60.0	52.8	53.7		58.5	50.3	51.2		62.6	-				39.7	51.5	35.8			
7/6/2016	10:03:00 AM	53.9	57.1	52.8	58.7		74.9	49.9	49.5		58.6	-				39.3	46.7	36.1			
7/6/2016	10:04:00 AM	51.7	63.5	43.4	53.4		55.9	51.5	48.4		52.2	-				40.6	56.3	36.1			
7/6/2016	10:05:00 AM	48.6	56.7	42.7

7/6/2016	10:21:00 AM	53.8	57.0	52.8	59.8	72.1	52.6	50.7	53.9	-		39.1	47.7	35.5	
7/6/2016	10:22:00 AM	50.2	55.4	45.6	66.4	88.2	54.1	51.0	55.8	-		40.2	57.3	35.8	
7/6/2016	10:23:00 AM	56.7	69.9	45.3	63.4	75.7	55.3	52.3	59.0	-		43.6	65.5	35.5	
7/6/2016	10:24:00 AM	63.8	76.3	44.9	60.6	70.0	55.2	49.9	53.3	-		43.2	58.7	36.1	
7/6/2016	10:25:00 AM	47.7	57.4	44.9	68.0	82.1	56.6	49.9	53.6	-		46.3	67.0	35.6	
7/6/2016	10:26:00 AM	48.9	57.8	45.0	61.7	71.8	56.5	53.4	61.2	-		45.8	66.7	36.2	
7/6/2016	10:27:00 AM	54.0	56.1	52.0	64.7	77.8	57.3	55.3	67.7	-		40.5	47.0	35.6	
7/6/2016	10:28:00 AM	54.5	57.6	53.2	62.9	76.4	56.8	60.8	67.8	-		39.3	47.0	35.6	
7/6/2016	10:29:00 AM	57.8	72.3	52.7	65.6	71.7	58.1	51.6	56.1	-		40.6	51.6	36.8	
7/6/2016	10:30:00 AM	55.0	63.9	52.5	63.9	74.8	58.1	52.9	65.7	-		42.7	62.1	35.6	
7/6/2016	10:31:00 AM	63.5	76.3	52.8	61.5	66.6	56.8	56.9	67.0	-		43.0	54.4	36.3	
7/6/2016	10:32:00 AM	53.6	56.8	52.3	62.0	72.6	57.0	53.6	63.7	-		39.5	48.4	36.0	
7/6/2016	10:33:00 AM	53.5	58.9	52.0	62.6	75.3	56.8	52.6	57.2	-		40.3	48.2	35.8	
7/6/2016	10:34:00 AM	55.4	71.1	52.7	61.0	81.3	56.2	51.1	55.3	-		41.8	56.8	35.8	
7/6/2016	10:35:00 AM	63.9	77.2	52.1	62.4	74.3	55.6	52.8	59.7	-		40.7	54.0	36.0	
7/6/2016	10:36:00 AM	57.8	70.4	52.8	61.2	79.3	55.4	51.8	55.0	-		42.4	55.1	35.8	
7/6/2016	10:37:00 AM	67.3	88.1	52.5	70.1	90.2	58.9	51.7	54.9	-		38.8	43.4	36.0	
7/6/2016	10:38:00 AM	53.4	57.9	52.1	69.2	86.7	55.7	51.7	54.9	-		38.8	48.0	35.6	
7/6/2016	10:39:00 AM	53.5	57.1	52.0	61.9	73.3	56.9	53.4	74.6	-		38.4	42.8	35.8	
7/6/2016	10:40:00 AM	54.2	58.0	52.5	63.6	77.7	51.6	52.7	59.5	-		40.5	55.5	35.6	
7/6/2016	10:41:00 AM	53.8	61.5	51.9	58.8	65.5	51.7	51.0	54.7	-		39.2	51.9	36.0	
7/6/2016	10:42:00 AM	53.9	60.3	51.9	58.9	66.2	53.2	52.1	55.0	-		38.6	43.9	35.8	
7/6/2016	10:43:00 AM	54.5	63.9	52.5	55.0	59.3	52.4	52.3	56.6	-		41.3	54.0	35.8	
7/6/2016	10:44:00 AM	53.2	55.6	52.2	62.3	75.6	51.2	52.8	55.2	-		39.3	53.4	36.0	
7/6/2016	10:45:00 AM	53.1	54.6	51.7	59.2	65.0	54.2	53.1	58.6	-		40.5	51.4	36.3	
7/6/2016	10:46:00 AM	53.5	56.8	52.2	56.7	64.1	52.8	52.8	57.4	-		40.4	54.7	35.5	
7/6/2016	10:47:00 AM	53.9	62.4	52.1	55.2	58.4	53.2	53.2	60.1	-		38.0	51.7	35.5	
7/6/2016	10:48:00 AM	63.0	73.7	51.7	56.3	63.4	52.5	52.8	58.2	-		37.7	42.2	35.6	
7/6/2016	10:49:00 AM	53.2	57.9	52.0	71.9	83.1	56.9	52.2	56.3	-		40.3	48.4	35.5	
7/6/2016	10:50:00 AM	54.4	60.7	52.1	61.6	65.7	57.8	52.9	56.4	-		39.3	53.6	35.6	
7/6/2016	10:51:00 AM	54.2	64.2	51.7	62.3	66.4	58.0	53.7	57.5	-		44.7	58.9	36.1	
7/6/2016	10:52:00 AM	56.8	65.0	52.0	65.0	76.2	58.3	52.0	58.0	-		44.6	62.3	36.1	
7/6/2016	10:53:00 AM	56.0	66.9	52.7	64.5	69.2	59.9	52.0	57.1	-		40.0	47.3	36.0	
7/6/2016	10:54:00 AM	55.9	69.1	52.4	60.6	66.0	56.7	50.9	62.0	-		39.5	47.7	35.5	
7/6/2016	10:55:00 AM	58.9	79.3	52.0	63.7	68.7	57.2	50.8	54.9	-		42.6	58.3	35.4	
7/6/2016	10:56:00 AM	53.1	57.4	51.8	65.4	71.1	62.6	52.5	54.7	-		47.0	65.2	36.3	
7/6/2016	10:57:00 AM	53.6	57.1	51.9	64.0	70.2	59.9	52.6	56.5	-		38.3	48.3	35.4	
7/6/2016	10:58:00 AM	55.2	68.4	52.0	62.0	67.2	55.7	54.3	60.4	-		41.8	61.5	35.1	
7/6/2016	10:59:00 AM	57.1	69.5	52.5	62.4	67.3	57.8	51.3	55.8	-		49.4	69.4	35.5	
7/6/2016	11:00:00 AM	63.2	81.5	52.1								39.4	56.9	35.7	
7/6/2016	11:01:00 AM	56.3	66.9	52.0								38.4	43.6	35.6	
7/6/2016	11:02:00 AM	55.5	72.0	52.3								38.3	53.2	35.3	
7/6/2016	11:03:00 AM	61.6	83.2	53.0								37.7	42.1	35.0	
7/6/2016	11:04:00 AM	67.6	79.8	53.0								37.9	46.8	35.1	
7/6/2016	11:05:00 AM	53.1	64.0	47.2								37.4	42.7	35.3	
7/6/2016	11:06:00 AM	50.3	56.3	48.5								38.4	53.2	35.5	
7/6/2016	11:07:00 AM	64.6	78.2	49.3								43.4	58.7	35.5	
7/6/2016	11:08:00 AM	54.1	58.8	48.5								37.5	41.1	35.4	
7/6/2016	11:09:00 AM	54.4	58.4	53.1								37.5	43.0	35.0	
7/6/2016	11:10:00 AM	54.0	55.3	53.0								38.0	48.1	35.4	
7/6/2016	11:11:00 AM	55.2	58.4	53.4								39.2	51.2	35.6	
7/6/2016	11:12:00 AM	55.0	56.9	54.0								38.8	46.9	35.6	
7/6/2016	11:13:00 AM	54.7	61.4	53.4								39.1	53.5	35.0	
7/6/2016	11:14:00 AM	54.1	56.1	53.0								37.9	44.3	35.6	
7/6/2016	11:15:00 AM	54.3	55.5	52.9								38.3	53.4	35.5	
7/6/2016	11:16:00 AM	63.8	75.8	52.9								37.8	43.3	35.6	
7/6/2016	11:17:00 AM	55.2	61.0	53.6								38.6	43.4	35.8	
7/6/2016	11:18:00 AM	55.0	58.2	53.2								44.9	64.6	36.1	
7/6/2016	11:19:00 AM	55.6	72.1	53.0								41.0	53.0	35.5	
7/6/2016	11:20:00 AM	54.2	58.6	52.8								41.7	59.2	35.4	
7/6/2016	11:21:00 AM	54.9	61.8	52.9								38.0	46.4	35.1	
7/6/2016	11:22:00 AM	61.7	74.0	53.1								38.4	42.2	35.6	
7/6/2016	11:23:00 AM	64.0	77.0	52.9								40.0	54.2	35.3	
7/6/2016	11:24:00 AM	61.8	83.4	52.8								39.0	53.2	35.7	
7/6/2016	11:25:00 AM	53.8	58.0	52.6								37.3	44.7	35.3	
7/6/2016	11:26:00 AM	54.2	56.1	52.9								39.6	53.1	35.3	
7/6/2016	11:27:00 AM	53.5	58.5	52.2								39.0	52.5	34.9	
7/6/2016	11:28:00 AM	54.6	59.5	52.5								38.4	51.5	35.4	
7/6/2016	11:29:00 AM	57.5	72.4	53.6								37.9	53.1	35.3	
7/6/2016	11:30:00 AM	63.9	74.6	54.3								37.3	46.9	35.1	
7/6/2016	11:31:00 AM	54.0	58.5	52.5								38.5	50.6	35.4	
7/6/2016	11:32:00 AM	55.1	62.4	53.1								37.8	44.0	35.4	
7/6/2016	11:33:00 AM	54.3	58.5	52.9								39.9	47.9	35.4	
7/6/2016	11:34:00 AM	54.7	58.8	53.2								38.9	51.2	35.6	
7/6/2016	11:35:00 AM	56.4	70.4	47.7								38.9	47.6	35.6	
7/6/2016	11:36:00 AM	53.4	67.6	46.7								38.5	45.9	35.1	
7/6/2016	11:37:00 AM	50.0	54.2	47.7								39.4	53.5	35.3	
7/6/2016	11:38:00 AM	51.5	56.0	49.3								40.1	53.9	35.4	
7/6/2016	11:39:00 AM	53.5	59.3	49.8								39.2	48.4	35.1	
7/6/2016	11:40:00 AM	53.7	55.7	52.4								38.5	46.5	35.8	
7/6/2016	11:41:00 AM	53.6	55.9	52.5								38.4	48.6	35.3	
7/6/2016	11:42:00 AM	54.1	57.3	52.9								38.0	46.8	35.3	
7/6/2016	11:43:00 AM	55.7	73.6	52.7								38.2	46.9	35.6	
7/6/2016	11:44:00 AM	55.7	60.3	53.2								39.0	50.4	35.4	
7/6/2016	11:45:00 AM	55.5	65.2	52.8								39.0	48.3	35.7	
7/6/2016	11:46:00 AM	60.8	76.6	53.7								38.7	47.0	35.5	
7/6/2016	11:47:00 AM	56.2	60.0	53.3								39.4	53.5	34.8	
7/6/2016	11:48:00 AM	56.0	75.4	52.9								37.7	44.2	35.4	
7/6/2016	11:49:00 AM	54.0	61.0	53.0								38.1	53.3	35.5	
7/6/2016	11:50:00 AM	55.8	60.9	53.1								37.5	41.2	35.4	
7/6/2016	11:51:00 AM	55.2	67.0	53.0								37.5	40.8	35.1	
7/6/2016	11:52:00 AM	54.3	62.5	53.0								39.6	51.2	35.5	
7/6/2016	11:53:00 AM	56.3	63.0	53.5								41.2	53.8	35.4	
7/6/2016	11:54:00 AM	54.4	58.7	53.0								37.4	40.0	35.4	
7/6/2016	11:55:00 AM	54.8	61.4	53.2								38.5	45.6	35.6	
7/6/2016	11:56:00 AM	55.2	61.7	53.2								39.3	53.1	35.7	
7/6/2016	11:57:00 AM	55.3	58.6	53.5								39.5	57.6	35.5	
7/6/2016	11:58:00 AM	55.2	59.0	54.0								37.7	44.7	35.1	
7/6/2016	11:59:00 AM	57.9	67.1	53.4								38.3	53.7	34.9	

62.6 CNEL

	Min	Max	Average
Daytime	55.8	65.8	59.9
Evening	55.2	64.5	59.6
Night	41.4	59.2	49.8

65.6 CNEL

	Min	Max	Average
Daytime	49.2	75.4	59.1
Evening	49.9	70.1	58.8
Night	41.3	59.5	47.0

ATTACHMENT 3

SoundPLAN Data – Construction Noise

Construction Equipment Noise Levels

Total Equipment List

Equipment	Anticipated Model	Number	Individual Noise Level (dB[A] at 50 feet)	Sound Power Level	Cumulative Noise Level (dB[A] at 50 feet)
Auger Drill Rig	Unspecified Drill Rig	1	78	63095734	91.4
Concrete Pump Truck	Unspecified Concrete Pump	2	75	63245553	
Crane	Unspecified 45-ton Crane	1	77	50118723	
Dozer	Caterpillar D9 Bulldozer	1	81	125892541	
Dump Truck	10-Wheeler Dump Truck	1	80	100000000	
Front End Loader	Bobcat Skid Steer	2	76	79621434	
Front End Loader	Unspecified Skip Loader	2	76	79621434	
Non-motorized Equipment	Unspecified Water Stand (tank)	1	-	-	
Grader	Caterpillar 14G Motor Grader	1	81	125892541	
Scraper	Caterpillar 627 Wheel Tractor Scraper	4	81	503570165	
Flatbed Truck	Unspecified 4,000 Gallon Water Truck	2	80	200000000	

Type	Ground Type	Reference Leq (dBA)	Reference Distance (Feet)	Directionality Factor (1 = in air) (2 = over flat plane) (4 = against wall) (8 = corner of a	Sound Power Level SPL (dBA)
Point	Hard	91.4	50	2	123.1

Equipment	Anticipated Model	Number	Individual Noise Level (dB[A] at 50 feet)	Sound Power Level	Cumulative Noise Level (dB[A] at 50 feet)
Auger Drill Rig	Unspecified Drill Rig	0	78	0	85.8
Concrete Pump Truck	Unspecified Concrete Pump	0	75	0	
Crane	Unspecified 45-ton Crane	0	77	0	
Dozer	Caterpillar D9 Bulldozer	1	81	125892541	
Dump Truck	10-Wheeler Dump Truck	0	80	0	
Front End Loader	Bobcat Skid Steer	0	76	0	
Front End Loader	Unspecified Skip Loader	0	76	0	
Non-motorized Equipment	Unspecified Water Stand (tank)	0	-	-	
Grader	Caterpillar 14G Motor Grader	1	81	125892541	
Scraper	Caterpillar 627 Wheel Tractor Scraper	1	81	125892541	
Flatbed Truck	Unspecified 4,000 Gallon Water Truck	0	80	0	

Type	Ground Type	Reference Leq (dBA)	Reference Distance (Feet)	Directionality Factor (1 = in air) (2 = over flat plane) (4 = against wall) (8 = corner of a room)	Sound Power Level SPL (dBA)
Point	Hard	85.8	50	2	117.4

Modeling Results Table - Construction Noise

Receiver	Description	Noise Level dB(A)
		1st Floor
CONVENTION	Marina Walk west of Convention Center westmost entrance	59
CORONADO	Coronado Ferry Landing	46
FIFTH AVE-1	Northwestern project boundary of proposed Fifth Avenue Landing Project	62
FIFTH AVE-2	Southwestern project boundary of proposed Fifth Avenue Landing Project	63
HILTON	Marina Walk west of Hilton Bayfront	51
JOES	Nearest façade of Joe's Crab Shack	66
MARRIOT	Marina Walk west of Marriot Marquis	52
PARK	Southeastern portion of Embarcadero Marina Park North	55
SEAPORT	Marina Walk south of the southern portion of Seaport Village	48

ATTACHMENT 4

Ambient Noise Level Increases

Ambient Noise Level Increases

EMPS

Ambient Measurements	
Measured CNEL	61.1

Time	Range	Midpoint
Day	53.0-61.4	57.2
Evening	52.2-56.6	54.4
Night	52.2-56.6	54.4

	Maximum Unmitigated Event Day			Maximum Mitigated Event Day			No Amplified Sound Event Day		
Hour	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL
00:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
01:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
02:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
03:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
04:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
05:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
06:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
07:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
08:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
09:00	75.0	75.0	31622777	75.0	75.0	31622777	60.0	60.0	1000000
10:00	75.0	75.0	31622777	75.0	75.0	31622777	60.0	60.0	1000000
11:00	75.0	75.0	31622777	75.0	75.0	31622777	60.0	60.0	1000000
12:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
13:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
14:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
15:00	75.0	75.0	31622777	57.2	57.2	524807.5	57.2	57.2	524807.5
16:00	75.0	75.0	31622777	57.2	57.2	524807.5	57.2	57.2	524807.5
17:00	75.0	75.0	31622777	75.0	75.0	31622777	60.0	60.0	1000000
18:00	75.0	75.0	31622777	75.0	75.0	31622777	60.0	60.0	1000000
19:00	75.0	80.0	1E+08	70.0	75.0	31622777	60.0	65.0	3162278
20:00	75.0	80.0	1E+08	70.0	75.0	31622777	60.0	65.0	3162278
21:00	75.0	80.0	1E+08	70.0	75.0	31622777	60.0	65.0	3162278
22:00	75.0	85.0	3.16E+08	65.0	75.0	31622777	60.0	70.0	10000000
23:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
		76			71			63	
	Increase	14.5		Increase	10.0		Increase	2.1	

Part Hour Weighted Leq		
1st Sixth	70	10000000
2nd Sixth	70	10000000
3rd Sixth	70	10000000
4th Sixth	70	10000000
5th Sixth	54.4	275423
6th Sixth	54.4	275423
	68.3	

	Maximum Unmitigated Non-Event Day			Maximum Unmitigated or MM NOI-4 Non-Event Day Daytime Only			Maximum Unmitigated Non-Event Day Nighttime Only			ALT MM NOI-4		
Hour	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL
00:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
01:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
02:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
03:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
04:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
05:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
06:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
07:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
08:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
09:00	70.0	70.0	10000000	70.0	70.0	10000000	57.2	57.2	524807.5	57.2	57.2	524807.5
10:00	70.0	70.0	10000000	70.0	70.0	10000000	57.2	57.2	524807.5	57.2	57.2	524807.5
11:00	70.0	70.0	10000000	70.0	70.0	10000000	57.2	57.2	524807.5	57.2	57.2	524807.5
12:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
13:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
14:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
15:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
16:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
17:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
18:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
19:00	70.0	75.0	31622777	54.4	59.4	870963.6	70.0	75.0	31622777	70.0	75.0	31622777
20:00	70.0	75.0	31622777	54.4	59.4	870963.6	70.0	75.0	31622777	68.3	73.3	21372172
21:00	70.0	75.0	31622777	54.4	59.4	870963.6	70.0	75.0	31622777	54.4	59.4	870963.6
22:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
23:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
		68			64			67			65	
	Increase	7.0		Increase	3.0		Increase	6.1		Increase	4.4	

Fifth Avenue Landing, San Diego Bayfront Park, and Hilton San Diego Bayfront Hotel

Ambient Measurements		Notes
Measured CNEL	NA	CNEL not measures at this location
Estimated CNEL	61.3	Based on evening hourly measurements
Assumed CNEL	61.1	Based on nearest (EMPS) CNEL measurement

Time	Range	Midpoint
Day	53.0-61.4	57.2
Evening	49.8-53.6	51.7
Night	52.2-56.6	54.4

Half hour weighted Leq		
First Half	65	3162278
Second Half	57.2	524807
	62.7	

	Estimated vs Assumed Ambient CNEL Check-in			Maximum Unmitigated Event Day			Maximum Unmitigated Non-Event Day			Maximum Unmitigated Non-Event Day without NOS-4			Maximum Mitigated Event Day		
Hour	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL	Leq	CNEL	Weighted SPL
00:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
01:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
02:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
03:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
04:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
05:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
06:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
07:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
08:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
09:00	57.2	57.2	524807.5	65.0	65.0	3162278	60.0	60.0	1000000	60.0	60.0	1000000	65.0	65.0	3162278
10:00	57.2	57.2	524807.5	65.0	65.0	3162278	60.0	60.0	1000000	60.0	60.0	1000000	65.0	65.0	3162278
11:00	57.2	57.2	524807.5	65.0	65.0	3162278	60.0	60.0	1000000	60.0	60.0	1000000	65.0	65.0	3162278
12:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
13:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
14:00	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
15:00	57.2	57.2	524807.5	65.0	65.0	3162278	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
16:00	57.2	57.2	524807.5	65.0	65.0	3162278	57.2	57.2	524807.5	57.2	57.2	524807.5	57.2	57.2	524807.5
17:00	57.2	57.2	524807.5	65.0	65.0	3162278	57.2	57.2	524807.5	57.2	57.2	524807.5	65.0	65.0	3162278
18:00	57.2	57.2	524807.5	65.0	65.0	3162278	57.2	57.2	524807.5	57.2	57.2	524807.5	65.0	65.0	3162278
19:00	51.7	56.7	467735.1	65.0	70.0	10000000	54.4	59.4	870963.6	60.0	65.0	3162278	60.0	65.0	3162278
20:00	51.7	56.7	467735.1	65.0	70.0	10000000	54.4	59.4	870963.6	60.0	65.0	3162278	60.0	65.0	3162278
21:00	51.7	56.7	467735.1	65.0	70.0	10000000	54.4	59.4	870963.6	60.0	65.0	3162278	60.0	65.0	3162278
22:00	54.4	64.4	2754229	65.0	75.0	31622777	54.4	64.4	2754229	54.4	64.4	2754229	55.0	65.0	3162278
23:00	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229	54.4	64.4	2754229
		61			67			62			62			64	
				Increase	5.4		Increase	0.6		Increase	1.3		Increase	2.4	

Marriot Marquis

Ambient Measurements		Notes
Measured CNEL	NA	CNEL not measures at this location
Estimated CNEL	61.6	Based on evening hourly measurements

Time	Range	Midpoint
Day	53.0-61.4	57.2
Evening	53.8-58.0	55.9
Night	52.2-56.6	54.4

	Estimated Ambient CNEL		
Hour	Leq	CNEL	Weighted SPL
00:00	54.4	64.4	2754229
01:00	54.4	64.4	2754229
02:00	54.4	64.4	2754229
03:00	54.4	64.4	2754229
04:00	54.4	64.4	2754229
05:00	54.4	64.4	2754229
06:00	54.4	64.4	2754229
07:00	57.2	57.2	524807.5
08:00	57.2	57.2	524807.5
09:00	57.2	57.2	524807.5
10:00	57.2	57.2	524807.5
11:00	57.2	57.2	524807.5
12:00	57.2	57.2	524807.5
13:00	57.2	57.2	524807.5
14:00	57.2	57.2	524807.5
15:00	57.2	57.2	524807.5
16:00	57.2	57.2	524807.5
17:00	57.2	57.2	524807.5
18:00	57.2	57.2	524807.5
19:00	55.9	60.9	1230269
20:00	55.9	60.9	1230269
21:00	55.9	60.9	1230269
22:00	54.4	64.4	2754229
23:00	54.4	64.4	2754229
		62	

Coronado

Ambient Measurements		Notes
Measured CNEL	NA	CNEL not measures at this location
Estimated CNEL	62.3	Based on evening hourly measurements

Time	Range	Midpoint
Day	53.0-61.4	57.2
Evening	55.7-64.2	60.0
Night	52.2-56.6	54.4

	Estimated Ambient CNEL		
Hour	Leq	CNEL	Weighted SPL
00:00	54.4	64.4	2754229
01:00	54.4	64.4	2754229
02:00	54.4	64.4	2754229
03:00	54.4	64.4	2754229
04:00	54.4	64.4	2754229
05:00	54.4	64.4	2754229
06:00	54.4	64.4	2754229
07:00	57.2	57.2	524807.5
08:00	57.2	57.2	524807.5
09:00	57.2	57.2	524807.5
10:00	57.2	57.2	524807.5
11:00	57.2	57.2	524807.5
12:00	57.2	57.2	524807.5
13:00	57.2	57.2	524807.5
14:00	57.2	57.2	524807.5
15:00	57.2	57.2	524807.5
16:00	57.2	57.2	524807.5
17:00	57.2	57.2	524807.5
18:00	57.2	57.2	524807.5
19:00	60.0	65.0	3126079
20:00	60.0	65.0	3126079
21:00	60.0	65.0	3126079
22:00	54.4	64.4	2754229
23:00	54.4	64.4	2754229
		62	

ATTACHMENT 5

FHWA Traffic Noise Prediction Model Output

FHWA RD-77-108

Traffic Noise Prediction Model

Data Input Sheet

Project Name : Symphony Bayfront
Project Number : 8293
Modeled Condition : Long Term With and Without Event

Surface Refelction: CNEL
Assessment Metric: Hard
Peak ratio to ADT: 10.00
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Harbor Drive	*West G Street to Pacific Highway*	14,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
2	Harbor Drive	*Pacific Highway to Kettner Blvd.*	18,500	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
3	Harbor Drive	*Market Street to Front Street*	29,200	35	50	96.00	3.00	1.00	80.00	10.00	10.00	
4	Harbor Drive	*First Ave. to Convention Center Ct.*	22,300	35	50	96.00	3.00	1.00	80.00	10.00	10.00	
5	Harbor Drive	*Fifth Ave. to Park Blvd.*	24,100	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
6	Harbor Drive	*South of Park Blvd.*	20,200	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
7	Pacific Highway	*West G Street to Harbor Drive*	9,700	35	50	96.00	3.00	1.00	80.00	10.00	10.00	
8	Harbor Drive	*West G Street to Pacific Highway*	14,604	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
9	Harbor Drive	*Pacific Highway to Kettner Blvd.*	18,840	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
10	Harbor Drive	*Market Street to Front Street*	29,540	35	50	96.00	3.00	1.00	80.00	10.00	10.00	
11	Harbor Drive	*First Ave. to Convention Center Ct.*	23,652	35	50	96.00	3.00	1.00	80.00	10.00	10.00	
12	Harbor Drive	*Fifth Ave. to Park Blvd.*	26,534	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
13	Harbor Drive	*South of Park Blvd.*	20,336	40	50	96.00	3.00	1.00	80.00	10.00	10.00	
14	Pacific Highway	*West G Street to Harbor Drive*	9,836	35	50	96.00	3.00	1.00	80.00	10.00	10.00	

FHWA RD-77-108

Traffic Noise Prediction Model

Predicted Noise Levels

Project Name : Symphony Bayfront
Project Number : 8293
Modeled Condition : Long Term With and Without Event
Assessment Metric: Hard

			Noise Levels, dBA Hard				Distance to Traffic Noise Level Contours, Feet					
Segment	Roadway	Segment	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	Harbor Drive	West G Street to Pacific Highway	61.3	57.9	60.7	65	5	16	50	158	500	1,581
2	Harbor Drive	Pacific Highway to Kettner Blvd.	68.3	62.1	62.2	70	16	50	158	500	1,581	5,000
3	Harbor Drive	Market Street to Front Street	68.6	63.2	63.6	71	19	59	186	587	1,858	5,874
4	Harbor Drive	First Ave. to Convention Center Ct.	67.4	62.1	62.5	70	14	45	141	446	1,409	4,456
5	Harbor Drive	Fifth Ave. to Park Blvd.	69.4	63.3	63.3	71	21	66	208	659	2,084	6,591
6	Harbor Drive	South of Park Blvd.	68.7	62.5	62.6	70	17	55	173	548	1,734	5,482
7	Pacific Highway	West G Street to Harbor Drive	63.8	58.4	58.9	66	6	19	62	195	615	1,945
8	Harbor Drive	West G Street to Pacific Highway	61.4	57.9	60.8	65	5	16	50	158	500	1,581
9	Harbor Drive	Pacific Highway to Kettner Blvd.	68.3	62.2	62.3	70	16	51	162	512	1,618	5,116
10	Harbor Drive	Market Street to Front Street	68.6	63.3	63.7	71	19	59	186	587	1,858	5,874
11	Harbor Drive	First Ave. to Convention Center Ct.	67.7	62.3	62.7	70	15	47	148	467	1,476	4,666
12	Harbor Drive	Fifth Ave. to Park Blvd.	69.8	63.7	63.8	72	23	72	229	723	2,285	7,227
13	Harbor Drive	South of Park Blvd.	68.7	62.6	62.6	70	17	55	173	548	1,734	5,482
14	Pacific Highway	West G Street to Harbor Drive	63.9	58.5	58.9	66	6	19	62	195	615	1,945

Transportation Impact Analysis

Bayside Performance Park Enhancement Project

Draft Report

February 2017

Prepared for:

San Diego Unified Port District
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Executive Summary

This Transportation Impact Analysis (TIA) serves to identify and document the potential transportation related impacts associated with implementation of the Bayside Performance Park Enhancement Project and Port Master Plan Amendment (Proposed Project). This TIA also recommends mitigation measures, as necessary, for any identified transportation related impacts associated with the Proposed Project.

ES.1 Project Background

The San Diego Symphony Orchestra Association (SDSOA) currently holds their Bayside Summer Nights performance series from June through September within a portion of Embarcadero Marina Park South (EMPS). The Proposed Project involves the development of a 3.47-acre permanent outdoor performance stage and acoustic shell (to be named the Bayside Performance Park) as well as public amenity improvements throughout the 10.6 acre EMPS. The Project site is located within the Marina Zone Subarea of Planning District 3 (Centre City/Embarcadero) of the certified Port Master Plan (PMP). The Proposed Project applicant is the SDSOA (Applicant).

The Proposed Project includes the construction of a new 57-foot tall covered performance stage containing approximately 6,740 square feet (sf) of performance space and moveable open air guest seating areas accommodating up to a maximum of 10,000 people within the proposed Bayside Performance Park. Improvements to EMPS include an increase in grade at the center of the park that will create a gently-sloped area to be covered with sand-based synthetic turf, creating an elevated "event lawn" which allows for terraced views of the stage and the bay. The Project also includes reconfiguration of EMPS and existing 128-space surface parking lot to a 132-space lot. The reconfiguration of EMPS will improve connectivity between the north and south ends and create more usable park area during non-event days. Additional modifications to EMPS include:

- Widening of the existing 8-foot-wide promenade to 12 feet around the perimeter of the proposed Bayside Performance Park;
- Replacement of the four existing basketball courts (two full-sized courts that are divided into four half-sized courts) with new materials and equipment (e.g., court surface, hoops);
- Relocation and refurbishment (or replacement, if necessary) of the existing fitness stations;
- Refurbishment of the existing public outdoor gazebo;
- Refurbishment of the existing public restrooms with new;
- Improved site concrete pavement and walkways; and,
- Signage

The Bayside Performance Park portion of the EMPS will be utilized by the Applicant for performances and events when access is restricted to patrons. Outside of performance and event hours, the Bayside Performance Park would be open to the public.

ES.2 Project Trip Generation, Distribution, and Assignment

Trip Generation

The Proposed Project will construct a permanent outdoor performance stage and acoustic shell on the site where a temporary venue is seasonally located for the SDOA's existing annual summer performances from June to September each year since 20XX. Due to the unique, event based nature of the Proposed Project, trip generation was determined by surveying 2016 event attendees. Over 700 unique survey responses

were received from attendees, collecting information such as the mode of travel, number of people arriving to the event (with carpooling), driving route, parking locations, and receptiveness to change habits based on potential incentives. Survey summary results are provided in Appendix C.

Table ES-1 presents the assumptions used to calculate the trip generation for 2016 event attendees. As shown, the survey responses indicate approximately 81% of attendees arrive to the events via automobile (including drive, Uber, or other rideshare services).

Table ES-1 Trip Generation Calculation Assumptions

Estimated Annual Attendance (2016)	96,280[1]
% of attendees arriving via automobile (including drivers, carpool, Uber, and other rideshare services)	80.8%[2]
Estimated # of attendees arriving via automobile (2016)	77,794

Source: Chen Ryan Associates, Inc. (2016)

Notes:

[1] San Diego Symphony (2016)

[2] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

As shown in Table ES-2, attendees arrive to the events with varying numbers of fellow patrons, ranging from zero to more than four. The percentage for each carpooling category was applied to the number of 2016 attendees that arrived to events via automobile to estimate the number of trips (one-way), which was 30,434. Total vehicular trips were then estimated by multiplying the one-way trips by two, resulting in 60,868 total trips for the 96,280 attendees in 2016, which equates to a rate of 0.63 vehicle trips per attendee.

Table ES-2 Estimated Auto Trips (2016 Event Attendees)

Number of Attendees Arriving with	Percent of Attendees by Carpool Category[1]	Attendees that Drove by Carpool Category	Auto Trips by Carpool Category (one-way)
0	1.89%	1,470	1,470
1	46.96%	36,532	18,266
2	19.22%	14,952	4,984
3	20.97%	16,313	4,078
4	8.25%	6,418	1,284
More than 4	2.71%	2,108	351
Total	**100%**	**77,794**	**30,434**

Source: Chen Ryan Associates, Inc. (2016)

Note:

1. San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

As a worst-case scenario, it was assumed that all patrons arrive during the event Arrival Peak and depart during the Dismissal Peak, with the total generated trips equally distributed to each. Continuing with worst-case scenario conditions, the venue's maximum capacity of 10,000 attendees was analyzed, however, the majority of events are anticipated to host less than 5,000 attendees. Given that the proposed maximum capacity is 10,000 attendees, the Proposed Project is anticipated to generated a maximum of 6,300 trips for each 10,000-person event, including 3,150 during the Arrival Peak and 3,150 during the Dismissal Peak.

Trip Distribution

Trip distribution for the Proposed Project was based on responses collected in the San Diego Symphony Bayside Performance Park Transportation & Parking Survey (2016). **Table ES-3** summarizes the responses to Question #4 asking, "If driving, what route do you take?"

Table ES-3 Project Trip Distribution Assumptions

Answer Choice	Percent of Responses[1, 2]
I-5, exit Front Street	30%
I-5, or SR-163, exit 10th Avenue	20%
I-5, exit Imperial Avenue or J Street	20%
SR-94, exit F Street	15%
Surface streets only	15%

Source: Chen Ryan Associates, Inc. (2016)

Notes:

[1] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

[2] Excludes "I don't drive to the events" responses

The 15% of "surface streets only" trips were distributed among Harbor Drive (north of Park Boulevard), Harbor Drive (south of Park Boulevard), Pacific Highway, Fourth Avenue/Fifth Avenue, Park Boulevard, Broadway, and Market Street.

ES.3 Project Study Area

Similar to the *San Diego Convention Center Phase III Expansion and Hotel Expansion EIR/Traffic Impact Study*, due to the tight density of intersections within Downtown San Diego and the off-peak nature of trips generated by the Proposed Project, it is assumed that not all intersections in which the project will add 50 or more peak hour trips within the downtown area will be required for analysis, as per City of San Diego standards. Instead the TIA will focus on the following intersection types:

1. Intersections identified as operating at LOS D, E or F under Downtown San Diego Mobility Plan EIR buildout conditions that Proposed Project traffic would be routed through;
2. Signalized intersections along Harbor; and
3. Freeway Ramp Intersections.

The following 24 study intersections were analyzed based on the criteria identified above:

1. Harbor Drive & Pacific Highway
2. Harbor Drive & Kettner Boulevard
3. Harbor Drive & Market Street
4. Front Street & Beech Street
5. Front Street & A Street
6. Front Street & Broadway
7. Harbor Drive & Front Street
8. First Avenue & Beech Street
9. First Avenue & A Street
10. First Avenue & Broadway
11. Harbor Drive & First Avenue
12. Harbor Drive & Convention Center Court
13. Fifth Avenue & Beech Street
14. Fifth Avenue & Broadway
15. Fifth Avenue & F Street
16. Fifth Avenue & G Street
17. Harbor Drive & Fifth Avenue
18. Harbor Drive & Park Boulevard
19. Tenth Avenue & A Street
20. Tenth Avenue & F Street
21. Tenth Avenue & G Street
22. Eleventh Avenue & A Street
23. Eleventh Avenue & F Street
24. Eleventh Avenue & G Street

ES.4 Project Impacts and Mitigation Measures

Direct Impacts – Non-Event to Design Event

Roadway Segments

No roadway segments were identified as being directly impacted by the Proposed Project.

Intersections

The following intersections were identified as being directly impacted by the Proposed Project:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[1]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[1]

Direct Impacts – Current Event to Design Event

Roadway Segments

No roadway segments were identified as being directly impacted by the Proposed Project.

Intersections

The following intersections were identified as being directly impacted by the Proposed Project:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal) [1]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[1]

Cumulative Impacts – Non-Event to Design Event

Roadway Segments

No roadway segments were identified as being cumulatively impacted by the Proposed Project under Near-Term Year 2020 or Future Year 2035 Conditions.

Intersections

The following intersections were identified as being cumulatively impacted by the Proposed Project under Near-Term Year 2020 or Future Year 2035 Conditions:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[1]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[1]

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Cumulative Impacts – Current Event to Design Event

Roadway Segments

No roadway segments were identified as being cumulatively impacted by the Proposed Project under Near-Term Year 2020 or Future Year 2035 Conditions.

Intersections

The following intersections were identified as being cumulatively impacted by the Proposed Project under Near-Term Year 2020 or Future Year 2035 Conditions:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[2]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[2]

Mitigation Measures

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Additionally, the analysis considered the venue's maximum capacity of 10,000 attendees, however, the majority of events are anticipated to host less than 5,000 attendees. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection. Similarly, external public event organizers should be responsible for providing Traffic Management Plans and traffic control officers as needed, consistent with event size and time.

Active Transportation and Transit

Potential impacts related to pedestrian, bicycle and transit circulation would be considered significant if the Proposed Project would substantially increase hazards due to a design feature, or would conflict with the adopted policies, plans, or programs supporting alternative transportation, as outlined in Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*. The Proposed Project does not include any transportation related modifications and therefore, would not conflict with or generate any significant impacts to the existing pedestrian, bicycle or transit facilities (trolley, bus, ferry, and water taxi services), nor the planned facilities and policies.

ES.5 Site Access

Due to the Proposed Project location and geographical constraints, site access will be largely by foot. Recognizing the importance of EMPS as a public park, the Applicant proposes to maintain the public promenade through the Bayside Performance Park during events and throughout the entire Bayside Performance Park (with the exception of the performance stage) at all times when no events are being

[2] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

held. The Port Master Plan Amendment will limit paid admission and rental events to 15% of the year, allowing for access to be completely open 85% of the year. Access within the Bayside Performance Park would be limited to patrons during event hours, with the exception of the back-of-stage steps and deck, which could remain open to the public during certain events, depending on the programming and event type. The back-of-stage steps and deck provide views of the bay and are accessible from the public promenade on the southwestern end of the site. The Proposed Project would include a widening of the promenade on the northwestern (Bayside Performance Park) area of EMPS, as well as other park enhancements. The promenade—both around the Bayside Performance Park and throughout the rest of EMPS—would remain open to the public at all times, including during all events, providing unlimited public access to the bay. In addition to the previously described enhancements, the following public access enhancements are proposed:

- Widening and replacement of the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park site with a 12-foot-wide promenade;
- Installation of public access wayfinding signage throughout EMPS;
- Installation of LED lighting to illuminate portions of the promenade and public benches within the Bayside Performance Park and main access point to aid in nighttime wayfinding and create a safe nighttime environment; and
- Installation of public educational signage throughout EMPS.

ES.6 Parking

Proposed Project event parking is anticipated to operate in the same manner as outlined in the 2016 Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided as Appendix I. According to the current Traffic Management Plan, the following parking lots may be used by patron's attending the venue:

- EMPS Parking Lot (128 total existing spaces; 132 spaces with Proposed Project)[3]
- Fifth Avenue Landing Parking Lot (287 total spaces)[4]
- Hilton Parking Garage (1,900 total spaces)[5]
- Convention Center Parking Garage (1,900 total spaces)[6]
- Local Parking Lots – Gaslamp Area (1,600 estimated spaces)
- Local Parking Lots – Copley Symphony Hall Area (1,900 estimated spaces)
- Remote/Overflow Parking Lot – BAE Systems (200 spaces)

Employee Parking

The District designates 56 parking spaces at EMPS for use by the Applicant. Fifteen of these spaces are designated as "ADA" parking. The remaining 41 spaces are for employee use, such as musicians, and site/administrative staff. These parking spaces are controlled/monitored via Applicant parking management. BAE Systems, located south of the Proposed Project site in the Barrio Logan community, has

[3] The District designates 56 spaces at EMPS for use by the Symphony. Fifteen of these spaces are designated as "ADA" parking. The remaining spaces will be used by musicians and Symphony site/administrative staff.

[4] The Applicant has arrangements with the leaseholder of the Fifth Avenue Landing parking lot to secure the 287 parking spaces for events. The Fifth Avenue Landing Parking Lot spaces may not be available at Proposed Project buildout due to potential development that may occur on the site.

[5] The San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR identified an average of 1,300 spaces at the Hilton Parking Garage after 6:00 PM, on a Friday and Saturday, during the month of September 2011.

[6] The San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR identified an average of 1,600 spaces at the Convention Center Parking Garage after 6:00 PM, on Saturdays, during the month of August 2010.

agreed to allow the Applicant use of 200 parking spaces within their 900-space parking lot located at the corner of Sampson & Main. Event staff will park in this lot and shall be shuttled to and from the Proposed Project site.

The number of parking spaces required under Proposed Project conditions was determined using a process similar to the trip generation, utilizing survey data to estimate the number of patrons arriving via automobile (excluding Uber and other rideshare services), while considering attendees that carpool.

Survey responses indicate approximately 75% of attendees arrive to the events via their own automobile. Uber and other rideshare service responses were excluded from the parking demand analysis, as they do not require a parking space. As shown in Table ES-4, it is estimated that 7,460 patrons will arrive via automobile for a 10,000-person event.

Table ES-4 Parking Requirement Assumptions

Maximum Number of Attendees under Buildout Conditions	10,000
% of attendees arriving to an event via automobile (excluding Uber, other rideshare)	74.6%[1]
Estimated # of attendees arriving via automobile under Buildout Conditions	**7,460**

Source: Chen Ryan Associates, Inc. (2016)

Note:
[1] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

Table ES-5 factors carpooling into the number of attendees arriving by automobile, resulting an in an estimated parking demand of 2,919 vehicles for a 10,000-person event.

Table ES-5 Parking Requirements – Proposed Project Conditions

Number of Attendees Arriving with	Percent of Attendees by Carpool Category[1]	Attendees that Drove by Carpool Category	Auto Trips by Carpool Category (one-way)
0	1.89%	141	141
1	46.96%	3,503	1,752
2	19.22%	1,434	478
3	20.97%	1,564	391
4	8.25%	616	123
More than 4	2.71%	202	34
Total	**100%**	**7,460**	**2,919**

Source: Chen Ryan Associates, Inc. (2016)

Note:
[1] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

The Hilton parking structure, Convention Center garage, and Fifth Avenue Landing lot are the primary parking facilities utilized by event patrons. Parking agreements are provided in Appendix D for the 2016 event season for the Hilton parking structure, Convention Center garage, and Fifth Avenue Landing lot. Parking availability at the Hilton parking structure and the Convention Center garage were determined by referencing the Convention Center Expansion EIR, which provides average parking availability at each location for various times of day and months of year. The Applicant has arrangements with the leaseholder of the Fifth Avenue Landing parking lot to secure the 287 parking spaces for events, however, it should be noted that these spaces may not be available at Proposed Project buildout due to potential development that may occur on the site, in which case alternative parking spaces need to be identified. The San Diego

Convention Center Phase III Expansion & Expansion Hotel Project EIR[7] identified an average of 1,600 spaces at the Convention Center garage on Saturdays during the month of August after 6:00 PM, and 1,300 available spaces at the Hilton parking structure on a Friday and Saturday during the month of September after 6:00 PM. Combined, these three locations provide a projected supply of 3,187 available spaces, which exceeds the estimated 2,919 spaces required by the Proposed Project during a 10,000-person event.

ES.7 Project Construction

Proposed Project construction activities include demolition, grading, construction of the performance stage and park enhancements, performance stage shell covering, and paving. The construction of the performance stage and park enhancements are anticipated to require the greatest number of construction personnel, with up to 75 workers and 4 construction trucks during the peak. As a worst-case scenario, it is assumed that all workers would drive individual vehicles to the project site, arriving and departing during the AM and PM peak hours.

Proposed Project construction is anticipated to generate approximately 174 daily vehicle trips, including 87 trips during the AM and PM peak hours.

The addition of Proposed Project Construction Traffic would not cause any roadway segments or intersections to operate at LOS F.

To ensure parking impacts do not occur during construction, a parking agreement should be in place to secure spaces at the Hilton parking structure, Convention Center parking garage, and/or Fifth Avenue Landing parking lot to provide for construction parking on occasions where vehicles cannot park within the project site.

[7] Excerpts from the San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR are provided as Appendix R.

1.0 Introduction

1.1 Purpose of the Report

This Transportation Impact Analysis (TIA) serves to identify and document the potential transportation related impacts associated with implementation of the Bayside Performance Park Enhancement Project and Port Master Plan Amendment (Proposed Project). This TIA also recommends mitigation measures, as necessary, for any identified transportation related impacts associated with the Proposed Project.

1.2 Project Background

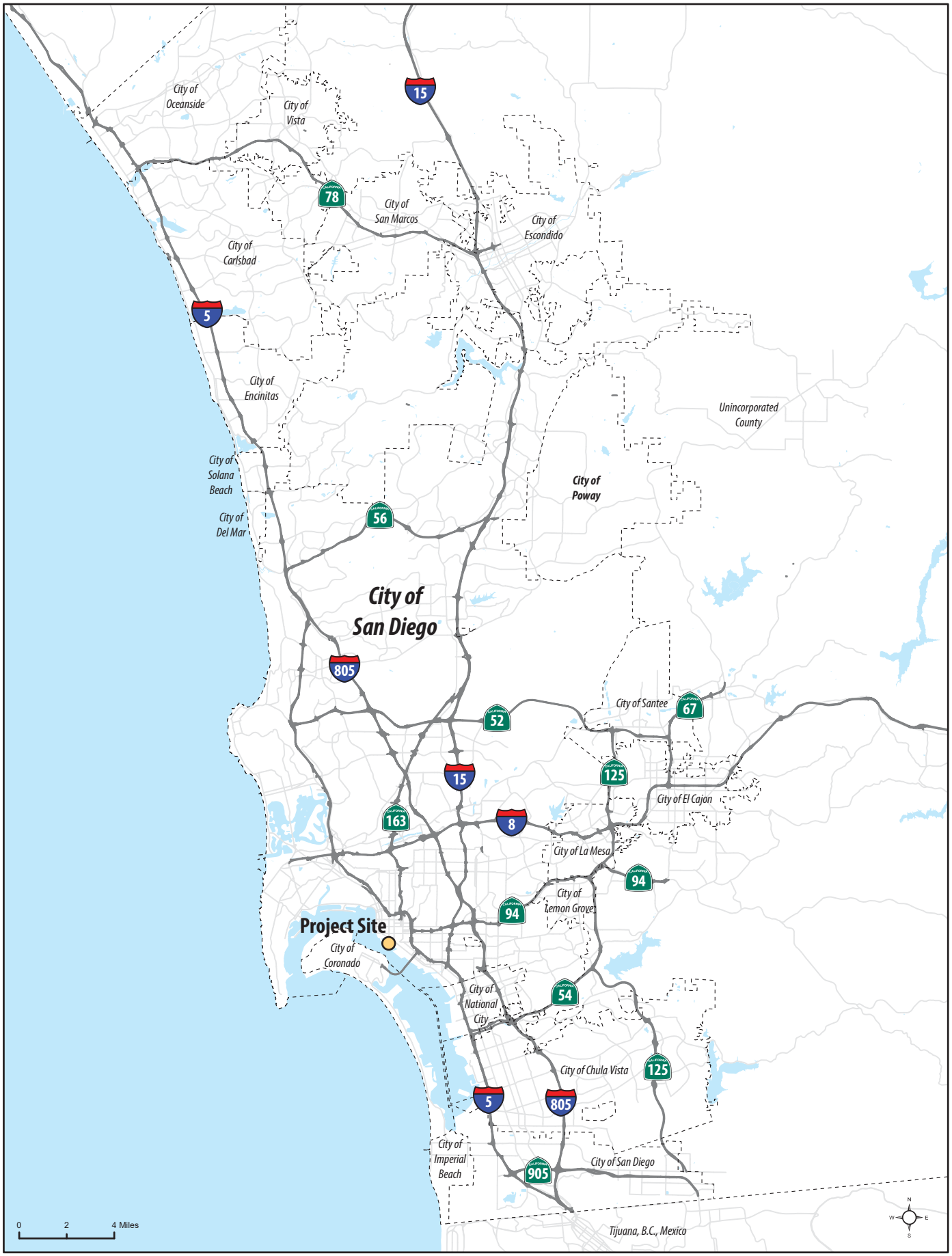
The Proposed Project involves the development of a 3.47-acre permanent outdoor performance stage and acoustic shell as well as other public improvements throughout the 10.6-acre Embarcadero Marina Park South (EMPS). The Project site is located within the Marina Zone Subarea of Planning District 3 (Centre City/Embarcadero) of the certified Port Master Plan (PMP). The Proposed Project applicant is the San Diego Symphony Orchestra Association (Applicant). **Figure 1-1** displays the Proposed Project location.

The Proposed Project includes the construction of a new 57-foot tall covered performance stage containing approximately 6,740 square feet (sf) of performance space and moveable open air quest seating areas accommodating up to a maximum of 10,000 people within the proposed Bayside Performance Park. Improvements to EMPS include an increase in grade at the center of the park that will create a gently-sloped area to be covered with sand-based synthetic turf, creating an elevated "event lawn" which allows for terraced views of the stage and the bay. The Project also includes reconfiguration of EMPS and existing 128-space surface parking lot to a 132-space lot. The reconfiguration of EMPS will improve connectivity between the north and south ends and create more usable park area during non-event days. Additional modifications to EMPS include:

- Widening of the existing 8-foot-wide promenade to 12 feet around the perimeter of the proposed Bayside Performance Park;
- Replacement of the four existing basketball courts (two full-sized courts that are divided into four half-sized courts) with new materials and equipment (e.g., court surface, hoops);
- Relocation and refurbishment (or replacement, if necessary) of the existing fitness stations;
- Refurbishment of the existing public outdoor gazebo;
- Refurbishment of the existing public restrooms with new;
- Improved site concrete pavement and walkways; and,
- Signage

1.3 Report Organization

This TIA provides an analysis of three scenarios, Non-Event, Current Event, and Design Event, for each of three timeframes, Existing Conditions, Near-Term Year 2020 Conditions, and Future Year 2035 Conditions. Non-Event represents conditions without any organized event at the Park, whereas Current Event represents conditions with the existing typical event sizes and schedule that are being held as of 2016 at the Park. The Design Event is indicative of Proposed Project conditions. The analyses presented under each timeframe include comparisons of the Design Event to Non-Event Conditions as well as Design Event to Current Event Conditions. The Design Event to Non-Event comparison allows for the isolation of impacts resulting from planned new events occurring during off-season, while the Design Event to Current Event comparison isolates the impacts from the expansion of the current events at the Park.



Bayside Performance Park Enhancement Project
Transportation Impact Analysis

CHEN RYAN

Figure 1-1
Project Regional Location

Following this introductory chapter, the report is organized into the following chapters:

1. *Analysis Methodology* – This chapter includes a description of the methodologies and standards utilized to analyze the roadway and intersection traffic conditions.
2. *Project Description* – A description of the project trip generation, trip distribution patterns, and trip assignments are provided in this chapter.
3. *Existing Conditions* – This chapter includes a description of the existing traffic operations, both with and without current and design event conditions. Mitigation measures for project-related impacts are also identified, if necessary.
4. *Near-Term Year 2020 Cumulative Traffic Conditions* – This chapter provides a description of projected traffic conditions associated with the project's opening year. Analyses for Near-Term Year 2020 Non-Event Conditions, Near-Term Year 2020 Plus Current Event Conditions, and Near-Term Year 2020 Plus Design Event Conditions are provided. Mitigation measures for project-related impacts are identified for Near-Term Year 2020 Plus Design Event Conditions, if necessary.
5. *Future Year 2035 Cumulative Traffic Conditions* – This chapter provides a description of projected Future Year 2035 traffic conditions associated with the Proposed Project. Analyses for Future Year 2035 Non-Event Conditions, Future Year 2035 Plus Current Event Conditions, and Future Year 2035 Plus Design Event Conditions are provided. Mitigation measures for project-related impacts are identified for Future Year 2035 Plus Design Event Conditions, if necessary.
6. *Pedestrian, Bicycle, and Transit Assessment* – This chapter focuses on pedestrian, bicycle and transit access to and from the Proposed Project.
7. *Site Access and Parking* – A description of site access and required parking for the Proposed Project is provided in this chapter.
8. *Project Construction* – This chapter includes a description of forecast traffic operations during project construction.

2.0 Analysis Methodology

This TIA was prepared in accordance with the City of San Diego *Traffic Impact Study Manual* (1998) requirements, and the San Diego Unified Port District's (District) California Environmental Quality Act (CEQA) project review process. Detailed information on roadway segments and intersection analysis methodologies, standards, and thresholds are discussed in the following sections.

2.1 Level of Service Definition

Level of Service (LOS) is a quantitative measure describing operational conditions within a traffic stream, and the motorist's and/or passenger's perception of operations. A LOS definition generally describes these conditions in terms of such factors as delay, speed, travel time, freedom to maneuver, interruptions in traffic flow, queuing, comfort, and convenience. Table 2.1 describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

Table 2.1 Level of Service Definitions

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Source: Highway Capacity Manual (2000)

2.2 Roadway Segment LOS Standards and Thresholds

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes. Table 2.2 presents the roadway segment capacity and LOS standards utilized to analyze roadways evaluated in this report.

These standards are generally used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway facility varies according to its physical attributes. Typically, the performance and LOS of a roadway segment is influenced by the ability of its intersections to accommodate peak hour traffic volumes. The Downtown San Diego community is unique in the City of San Diego in that roadway segment LOS is not a determinant of significant impacts, and

therefore, the Downtown community does not have a standard for acceptable roadway segment operation. Instead, intersection LOS is the determinant of significant impacts. Consistent with acceptable intersection LOS thresholds, for the purposes of the informational roadway segment analysis, LOS E is considered acceptable for the analyzed roadway segments.

Table 2.2 City of San Diego Roadway Classifications and LOS Standards

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway	< 30,000	< 42,000	< 60,000	< 70,000	**< 80,000**
Primary Arterial	< 25,000	< 35,000	< 50,000	< 55,000	**< 60,000**
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	< 45,000	**< 50,000**
Major Arterial (5-lane, divided)*	< 17,500	< 24,500	< 35,000	< 40,000	**< 45,000**
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	< 35,000	**< 40,000**
Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	< 25,000	**< 30,000**
Collector (4-lane w/o center lane)	< 5,000	< 10,000	< 13,000	< 15,000	**< 20,000**
Collector (2-lane w/ continuous left-turn lane)	< 5,000	< 10,000	< 13,000	< 15,000	**< 20,000**
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	< 9,000	**< 10,000**
Collector (2-lane commercial-industrial fronting)	< 2,500	< 3,500	< 5,000	< 6,500	**< 8,000**
Collector (2-lane multi-family)	< 2,500	< 3,500	< 5000	< 6,500	**< 8,000**
Sub-Collector (2-lane single family)	-	-	2,200	-	**-**

Source: City of San Diego, Traffic Impact Study Manual (1998)

Note: * Average of 4-lane and 6-lane Major Arterial thresholds used

2.3 Peak Hour Intersection LOS Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analysis for signalized intersections. The following assumptions were utilized in conducting all intersection LOS analyses:

- *Pedestrian Calls per Hour:* 10 calls per hour for each pedestrian movement was assumed.
- *Signal Timing:* Based on existing signal timing plans (as of October 2016), provided in Appendix A.
- *Peak Hour Factor*: Based on existing peak hour count data collected in support of this project for existing conditions and included in Appendix B, and 0.92 for all future conditions.

It should be noted that no unsignalized intersections are being analyzed.

Signalized Intersection Analysis

The analysis of signalized intersections utilized the procedures outlined in the *2000 Highway Capacity Manual (HCM)*. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (VPHPL) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane). The LOS criteria used for this technique are described in Table 2.3. The computerized analysis of intersection operations was performed utilizing *Synchro 8.0* traffic analysis software.

Events utilizing the maximum capacity of the Proposed Project (10,000 attendees) are anticipated to operate during times similar to current events, which have a 7:30 PM event start time. Due to this, the intersection analysis utilized conditions more consistent with anticipated maximum capacity events by analyzing an Event Arrival Peak (6:00 PM – 8:00 PM) and an Event Dismissal Peak (9:00 PM – 11:00 PM) rather than traditional peak periods. The majority of future events are anticipated to host less than 5,000 attendees, some of which may operate outside of the Event Arrival and Event Dismissal peak hours. However, the analysis took into consideration the worst-case scenario of 10,000 attendees, and therefore, analyzed hours consistent to this scale of event.

Table 2.3 Signalized Intersection LOS Criteria

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	*LOS A* describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1 – 20.0	*LOS B* describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1 – 35.0	*LOS C* describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1 – 55.0	*LOS D* describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1 – 80.0	*LOS E* is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	*LOS F* describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Highway Capacity Manual (2000)

2.4 Freeway Level of Service Standards and Thresholds

Freeway level of service analysis is based upon procedures developed by the California Department of Transportation (Caltrans). The procedure for calculating freeway level of service involves estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour ("K"), directional ("D") and truck ("T") factors to Average Daily Traffic (ADT) volumes. The base capacities for Interstate 5 were assumed to be 2,350 passenger-car per hour per main lane (pc/h/ln) and 1,410 pc/h/ln (60% of the main lane capacity) for auxiliary lane, respectively.

The resulting V/C ratio is then compared to acceptable ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in Table 2.4. The corresponding level of service represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour Consistent with Caltrans' *Guide for the Preparation of Traffic Impact Studies* (2002), LOS D is considered as the threshold for acceptable freeway operations. LOS D is the level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.

Table 2.4 Freeway Segment LOS Definitions

LOS	V/C	Congestion/Delay	Traffic Description
Used for freeways, expressways and conventional highways			
"A"	<0.30	None	Free flow.
"B"	0.31-0.50	None	Free to stable flow, light to moderate volumes.
"C"	0.51-0.71	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.71-0.89	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.90-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
Used for conventional highways			
"F"	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.

Source: Caltrans – Guide for the Preparation of Traffic Impact Studies (December 2002)

2.5 Determination of Significant Impacts

A project within the Centre City (Downtown San Diego) community is considered to have a significant impact on the traffic operations of an intersection when one of the following occurs:

- The addition of project traffic results in intersection LOS dropping from LOS E or better to LOS F. Under this condition, the project is determined to have a direct impact and mitigation measures would be necessary to restore the intersection LOS to LOS E conditions or better;
- If an intersection is operating at LOS F under base conditions and the project adds more than an additional 2 seconds of average vehicle delay, the project is determined to have a cumulatively significant impact and mitigation measures would be necessary to bring the intersection LOS to pre-development conditions or better;
- The addition of project traffic results in a freeway segment LOS dropping from LOS D or better to LOS E or LOS F. Under this condition the project is determined to have a direct impact and mitigation measures would be necessary to restore the freeway segment LOS to LOS D conditions or better;
- If a freeway segment is operating at LOS E under base conditions and the project results in a V/C increase of 0.01 or greater, the project is determined to have a cumulatively significant impact and mitigation measures would be necessary to bring the segment to a V/C increase of less than 0.01;
- If a freeway segment is operating at LOS F under base conditions and the project results in a V/C increase of .005 or greater, the project is determined to have a cumulatively significant impact and mitigation measures would be necessary to bring the segment to a V/C increase of less than .005.

The impact standards and acceptable intersection level of service listed above were established in the *Downtown San Diego Traffic Impact Assessment (TIA) Methodology Evaluation of New Projects* (June 2007) and incorporated into the *Downtown San Diego Mobility Plan FSEIR* (June 2016). It should be noted, these standards are only applicable within Downtown San Diego and are consistently used for all Downtown San Diego traffic studies.

The City of San Diego *Significance Determination Thresholds* (January 2011) defines project impact thresholds by facility type. These thresholds are generally based upon an acceptable increase in the Volume

/ Capacity (V/C) ratio for roadway and freeway segments, and upon increases in vehicle delays at intersections and ramps.

A project is considered to have a significant impact if it degrades the operations of a roadway or intersection from an acceptable LOS to an unacceptable LOS, or if it adds additional delay to a facility already operating at an unacceptable level. As stated above, LOS E is the minimum acceptable LOS for intersections within Downtown San Diego. Roadway segment operations are not a determinant of significant impacts within Downtown San Diego. Table 2.5 summarizes the impact significant thresholds as identified within the City of San Diego's guidelines beyond which mitigation measures are required.

Table 2.5 City of San Diego Measure of Significant Project Traffic Impacts

LOS with Project	Allowable Change Due to Impact					
	Freeways		Roadway Segments[1]		Intersections[2]	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec)	Delay (min.)
E (or ramp meter delays above 15 min.)	0.01	1.0	N/A	N/A	N/A	N/A
F (or ramp meter delays above 15 min.)	0.005	0.5	0.01	0.5	2.0	1.0

Source: City of San Diego, Significance Determination Thresholds (2011); Downtown San Diego Mobility Plan FSEIR (2016); Chen Ryan Associates, Inc. (2017)

Note: [1] Within Downtown San Diego, roadway segment operations are not a determinant of significant impacts. Roadway segment operational analysis is informational only.
[2] Within Downtown San Diego, the allowable change in intersection delay due to impact is 2 seconds.

3.0 Proposed Project

This section describes the Proposed Project, including proposed improvements, estimated trip generation, trip distribution, trip assignment, and the project study area.

3.1 Project Description

The project consists of the replacement and enhancement of structures in EMPS, as well as new ancillary facilities. Park enhancements include redevelopment of the 10.8-acre EMPS to accommodate the installation of two components: a) "Bayside Performance Park," referring to the 3.47-acre performance and event venue and public park enhancements located within the northwestern portion of EMPS; and b) "EMPS Enhancements," referring to the proposed public park enhancements located outside of the Bayside Performance Park and within the central and southeastern portions of EMPS. The Bayside Performance Park would utilize approximately one-third of EMPS area. The proposed site map is depicted in Figure 3-1.

Once complete, the performance and event venue would have the flexibility to accommodate a maximum capacity of 10,000 seats, though the majority of events are expected to have 5,000 or fewer attendees. The projected programming initially includes an estimated average attendance of 3,131 per event. In all, the following amenities would be constructed within a 3.47 Bayside Performance Park area that encompasses the northwestern portion of EMPS:

- Construction of a permanent performance stage and acoustic shell (maximum height of 57 feet) and performance back-of-house facilities; two 9-foot-by-14-foot video screens; seven sound and light supports; and a sound control booth;
- Synthetic turf; during event hours, seating would be temporary and no permanent seating would be installed; all lawns would be open to the public during non-event hours;
- Concrete steps and a deck at the back of the performance stage
- Box office;
- Two pavilions for food and/or other event services;
- 42-inch-tall perimeter fencing between the Bayside Performance Park and public promenade, with a one-foot-wide planter area on either side and large removable portions to provide public access throughout the Bayside Performance Park during non-event hours;
- Sections of -foot tall permanent and removable metal fencing at the northwestern back-of-stage areas;
- Subgrade restroom facility with a total of 68 stalls (4 public gender-neutral restrooms that would be open to the public during non-event hours); and
- Visual public art element illuminated on the exterior acoustic shell.

The construction of the permanent stage and ancillary facilities would eliminate the need to assemble and dismantle the temporary stage and facilities for the Bayside Summer Nights performances and potentially other special events. Further, the temporary stage configuration used for the seasonal venue is limited in its ability to control sound and visual resources.

Figure 3-1 Proposed Site Map

Map Source: Tucker Sadler

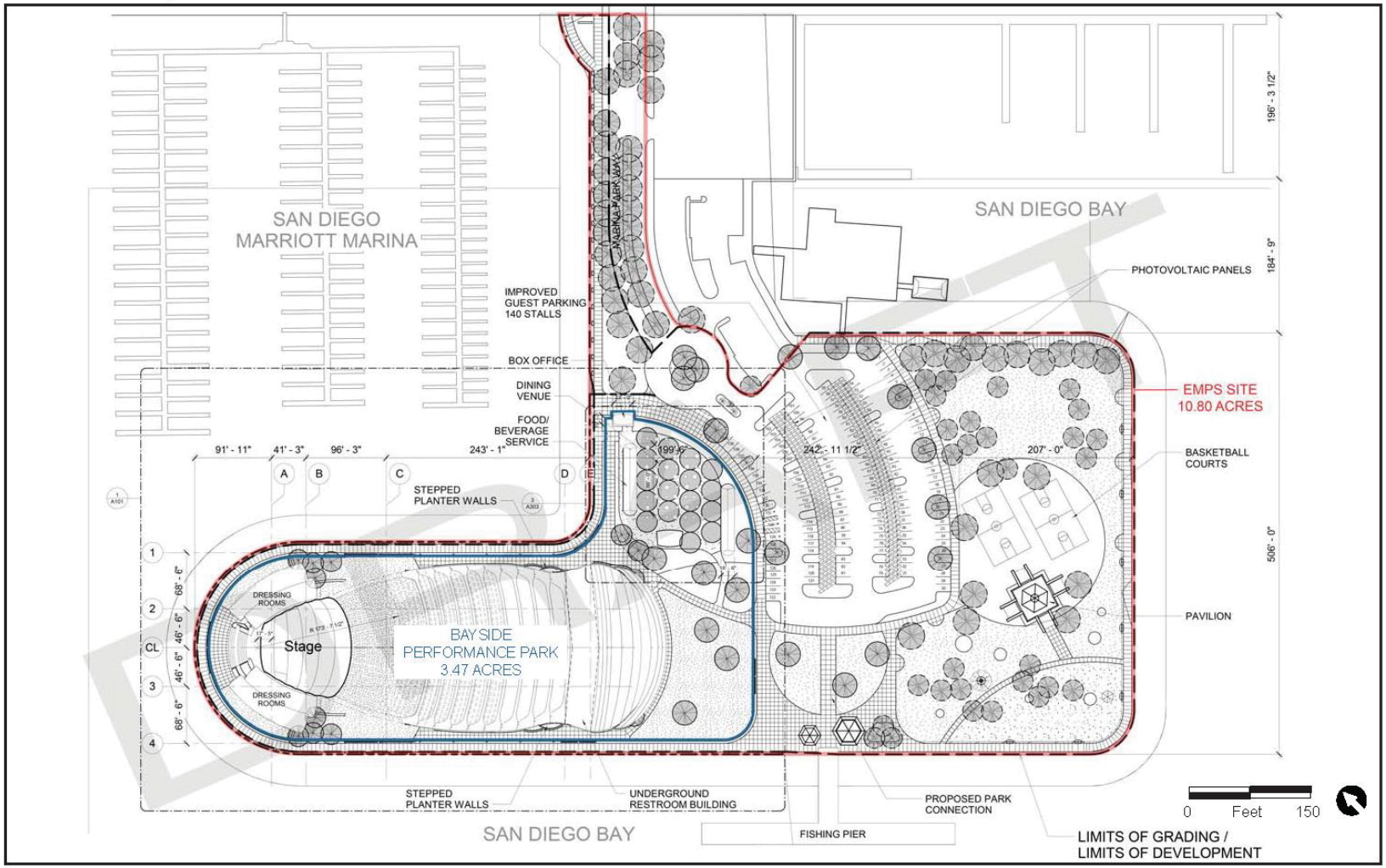


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FIGURE 3
Proposed Site Map

EMPS enhancements would reconfigure and enhance the areas of EMPS that are outside the Bayside Performance Park to create more usable park area and improve the existing public access on the site. EMPS enhancements include the following park enhancements throughout the southeastern and central portions of EMPS that fall outside the Bayside Performance Park boundaries:

- Reconfiguration of the parking lot to add four parking spaces and landscaped medians (for a total of 132 spaces);
- Replacement of the four existing basketball courts with new basketball court materials and equipment;
- Relocation of the existing exercise stations to the southeastern portion of the EMPS, near the gazebo and basketball courts, and replacement, as necessary, with new equipment;
- Refurbishment of the existing public outdoor gazebo with similar materials as existing; and
- Refurbishment of the existing public restrooms with new facilities (number of stalls would be maintained).

Public Access

Recognizing the land use of EMPS as a public park and part of the pedestrian-oriented waterfront experience in this portion of South Embarcadero, the project would maintain public accessibility within the Bayside Performance Park area (with the exception of the stage structure) during non-event hours. Symphony paid admission and rental events would be limited to 15 percent of the year in order to maintain public access and recreation within the Bayside Performance Park for 85 percent of the year. The following public access enhancements are proposed:

- Widening and replacement of the existing 8-foot-wide promenade around the perimeter of the Bayside Performance area with a 12-foot-wide promenade. The promenade would remain open to the public during all event and non-event hours;
- Installation of public access wayfinding signage and educational signage throughout EMPS;
- Installation of LED lighting to illuminate portions of the promenade and main access point to aid in nighttime wayfinding and create a safe nighttime environment; and
- Installation of public benches within the Bayside Performance Park.

3.2 Project Trip Generation

The Proposed Project will construct a permanent outdoor performance stage and acoustic shell on the site where a temporary venue is seasonally located from June to September each year and has been since 20XX. Due to the unique, event based nature of the Proposed Project, trip generation was determined by conducting a survey of 2016 event attendees. Over 700 unique survey responses were received from attendees, collecting information such as the mode of travel, number of people arriving to the event with (carpooling), driving route, parking locations, and receptiveness to change habits based on potential incentives. Survey summary results are provided in Appendix C.

Table 3.1 presents the assumptions used to calculate the trip generation for 2016 event attendees.

Table 3.1 Trip Generation Calculation Assumptions

Estimated Annual Attendance (2016)	96,280[1]
% of attendees arriving via automobile (including drivers, carpool, Uber, and other rideshare services)	80.8%[2]
Estimated # of attendees arriving via automobile (2016)	**77,794**

Source: Chen Ryan Associates, Inc. (2016)

Notes:

1. San Diego Symphony (2016)
2. San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

As shown in Table 3.1, the survey responses indicate approximately 81% of attendees arrive to the events via automobile (including drive, carpool, Uber, or other rideshare services).

As shown in Table 3.2, attendees arrive to the events with varying numbers of fellow patrons, ranging from zero to more than four. The percentage for each carpooling category was applied to the number of 2016 attendees that arrived to events via automobile to estimate the number of trips (one-way), which totaled 30,434 for the year. Total vehicular trips were then estimated by multiplying the one-way trips by two, resulting in 60,868 total trips for the 96,280 attendees in 2016. This results in a rate of 0.63 vehicle trips per attendee.

Table 3.2 Estimated Auto Trips (2016 Event Attendees)

Number of Attendees Arriving with	Percent of Attendees by Carpool Category[1]	Attendees that Drove by Carpool Category	Auto Trips by Carpool Category (one-way)
0	1.89%	1,470	1,470
1	46.96%	36,532	18,266
2	19.22%	14,952	4,984
3	20.97%	16,313	4,078
4	8.25%	6,418	1,284
More than 4	2.71%	2,108	351
Total	**100%**	**77,794**	**30,434**

Source: Chen Ryan Associates, Inc. (2016)

Note:

1. San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

As a worst-case scenario, it was assumed that all patrons arrive during the event Arrival Peak and depart during the Dismissal Peak, with the total generated trips equally distributed to each. Continuing with worst-case scenario conditions, the venue's maximum capacity of 10,000 attendees was analyzed, however, the majority of events are anticipated to host less than 5,000 attendees. Given the maximum capacity is 10,000 attendees, the Proposed Project is anticipated to generate a maximum of 6,300 trips for each 10,000-person event, including 3,150 during the Arrival Peak and 3,150 during the Dismissal Peak.

This process was replicated for Existing Plus Current Event Conditions, which serves as base conditions for comparisons, using the Existing Non-Event Conditions combined with the traffic resulting from average event attendance for the 2016 season, 2,285 attendees. Applying the 0.63 trip generation rate to the 2016 average attendance results in an estimated 1,440 average trips under Existing Plus Current Event Conditions, including 720 during the Event Arrival Peak and 720 during the Event Dismissal Peak.

3.3 Trip Distribution

Trip distribution for the Proposed Project was based on responses collected in the San Diego Symphony Bayside Performance Park Transportation & Parking Survey (2016). Table 3.3 summarizes the responses to Question #4 of the survey which asked: "If driving, what route do you take?"

Table 3.3 Project Trip Distribution Assumptions

Answer Choice	Percent of Responses[1, 2]
I-5, exit Front Street	30%
I-5, or SR-163, exit 10th Avenue	20%
I-5, exit Imperial Avenue or J Street	20%
SR-94, exit F Street	15%
Surface streets only	15%

Source: Chen Ryan Associates, Inc. (2016)

Notes:

1. San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)
2. Excludes "I don't drive to the events" responses

The 15% of "surface streets only" trips were distributed among Harbor Drive (north of Park Boulevard), Harbor Drive (south of Park Boulevard), Pacific Highway, Fourth Avenue/Fifth Avenue, Park Boulevard, Broadway, and Market Street.

Additionally, consideration was made to account for the varied parking locations patrons utilize, which primarily include the Hilton Parking Garage, Convention Center Garage, and the Fifth Avenue Landing lot[8]. Parking agreements are provided in Appendix D for the 2016 event season for the Hilton parking structure, Convention Center garage, and the Fifth Avenue Landing lot.

Internal Trip Capture (Downtown)

5.5% of survey respondents indicated a home zip code of 92101, which encompasses the entire Downtown San Diego community. Due to the low number of event attendees reported as living in Downtown, and the high rate of those attendees reported as walking or taking transit to the event, an internal capture rate was not assumed for vehicular traffic.

Figure 3-2 displays the Proposed Project trip distribution.

[8] The Applicant has arrangements with the leaseholder of the Fifth Avenue Landing parking lot to secure the 287 parking spaces for events. The Fifth Avenue Landing Parking Lot spaces may not be available at Proposed Project buildout due to potential development that may occur on the site.

Bayside Performance Park Enhancement Project
Transportation Impact Analysis

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Figure 3-2
Project Trip Distribution

3.4 Trip Assignment

Project trip assignment was based on the assumed project trip distribution and project trip generation described in the previous sections. Figure 3-3a displays trips assigned to the adjacent roadway network, while Figure 3-3b displays the assumed Event Arrival Peak and Event Dismissal Peak project trip assignments to study intersections.

3.5 Project Study Area

Similar to the *San Diego Convention Center Phase III Expansion and Hotel Expansion EIR/Traffic Impact Study*, due to the tight density of intersections within Downtown San Diego and the off-peak nature of trips generated by the Proposed Project, it is assumed that not all intersections in which the project will add 50 or more peak hour trips within the downtown area will be required for analysis, as per City of San Diego standards. Instead the TIA will focus on the following intersection types:

1. Intersections identified as operating at LOS D, E or F under Downtown San Diego Mobility Plan EIR (2015) buildout conditions. This condition was used to ensure intersections with high potential for being significantly impacted, using the criteria from Chapter 2, were analyzed.
2. Signalized intersections along Harbor Drive. This condition takes into consideration the location of the Proposed Project and that all traffic going to the project site must utilize Harbor Drive.
3. Key intersections providing access to the Proposed Project site. This condition was employed to account for access from the freeway network and adjacent neighborhoods.

Figure 3-4 displays the project study area.

3.5.1 Study Roadway Segments

Based on the project trip assignment and input from District staff, the following key study area roadway segments were analyzed:

<u>Harbor Drive</u>

- Broadway to Pacific Highway
- Pacific Highway to Kettner Boulevard
- Market Street to Front Street
- First Avenue to Convention Center Court
- Fifth Avenue to Park Boulevard
- South of Park Boulevard

<u>Pacific Highway</u>

- West G Street to Harbor Drive

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Transportation Impact Analysis

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Figure 3-3A
Daily Project Trip Assignment

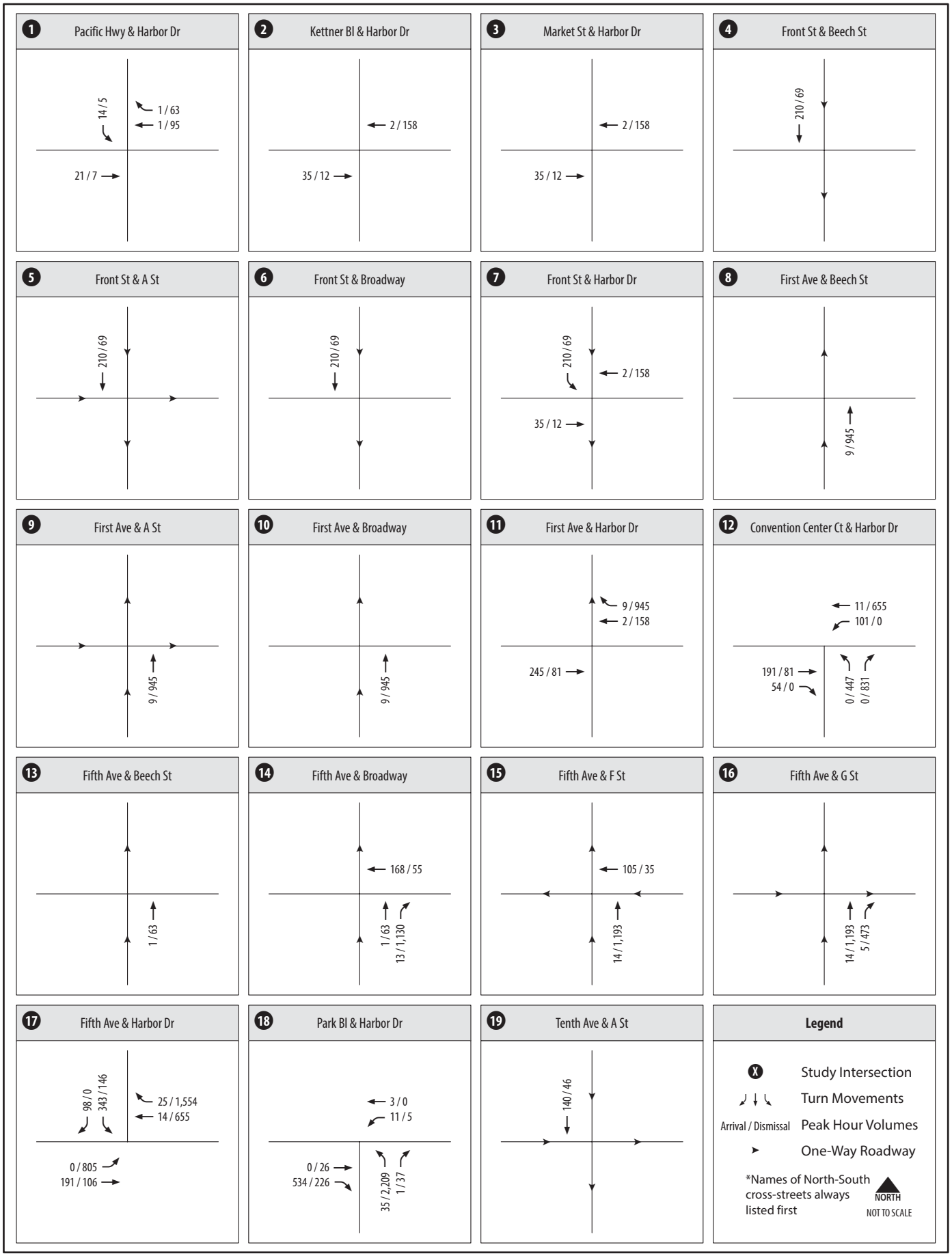

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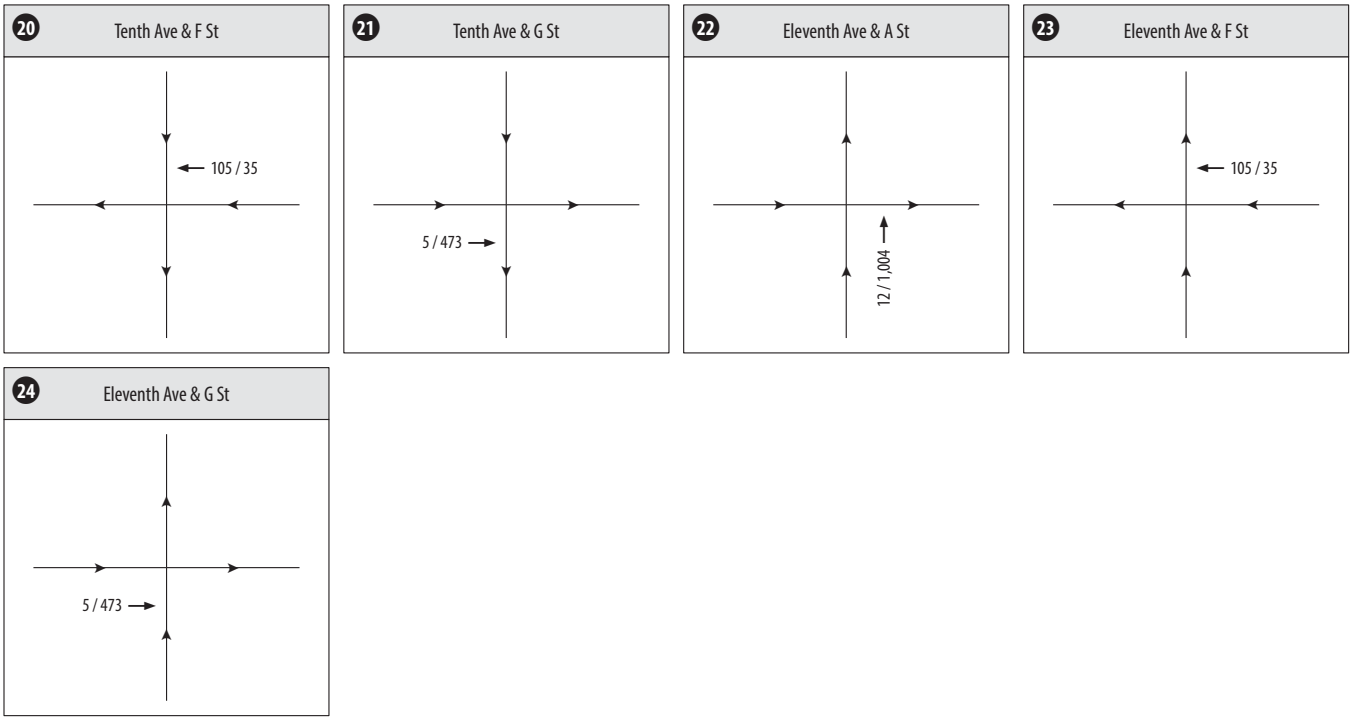
Figure 3-3B
Event Arrival / Dismissal
Peak Hour Intersection Project Trip Assignment (Intersections 1-19)



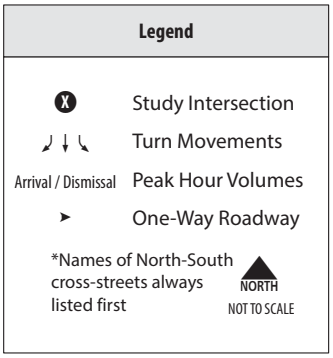


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Figure 3-3B
Event Arrival / Dismissal
Peak Hour Intersection Project Trip Assignment (Intersections 20-24)

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Figure 3-4
Project Study Area

3.5.2 Study Intersections

Based on the criteria outlined in Section 3.5, the following 24 intersections were analyzed:

1. Pacific Highway / Harbor Drive
2. Kettner Boulevard / Harbor Drive
3. Market Street / Harbor Drive
4. Front Street / Beech Street
5. Front Street / A Street
6. Front Street / Broadway
7. Front Street / Harbor Drive
8. First Avenue / Beech Street
9. First Avenue / A Street
10. First Avenue / Broadway
11. First Avenue / Harbor Drive
12. Convention Center Court / Harbor Drive
13. Fifth Avenue / Beech Street
14. Fifth Avenue / Broadway
15. Fifth Avenue / F Street
16. Fifth Avenue/ G Street
17. Fifth Avenue / Harbor Drive
18. Park Boulevard / Harbor Drive
19. Tenth Avenue / A Street
20. Tenth Avenue / F Street
21. Tenth Avenue / G Street
22. Eleventh Avenue / A Street
23. Eleventh Avenue / F Street
24. Eleventh Avenue / G Street

3.5.3 Study Freeway Mainline Segments

The Proposed Project will not add 50 of more peak hour trips on any single freeway mainline segment. However, the following freeway mainline segments were analyzed for informational purposes:

- I-5 between Grape Street and First Avenue
- I-5 between First Avenue and SR-163
- I-5 between SR-163 and B Street
- I-5 between B Street and SR-94
- I-5 between SR-94 and Imperial Avenue
- I-5 between Imperial Avenue and SR-75
- SR-163 south of Robinson Avenue
- SR-94 west of 25th Street

4.0 Existing Conditions

This chapter includes a description of the key study area roadway segments and provides an analysis of the existing traffic conditions during Non-Event, Current Event, and Design Event Conditions.

4.1 Existing Roadway Network

As described in the previous chapter, Harbor Drive and Pacific Highway are the only key study area roadway segments. A description of each roadway is provided below. Pedestrian and bicycle facilities, as well as transit services are described in Chapter 7.

Harbor Drive

Harbor Drive bounds the Downtown San Diego community along its western and southern boundary. Harbor Drive connects to the Midway-Pacific Highway community to the north, and the Barrio Logan community to the south. Harbor Drive is a two-way roadway, and is generally four lanes with a raised median. It reduces to 2-lanes with a continuous left-turn lane between Broadway and Pacific Highway, and expands to six lanes between Pacific Highway and Front Street and north of Ash Street. The posted speed limit is 40 mph from Pacific Highway to Park Boulevard. South of Park Boulevard the speed limit increases to 45 mph. North of Pacific Highway the speed limit is 25 mph. On-street parking is generally permitted along the east side of Harbor Drive between Broadway and Grape Street. The Proposed Project is located south of Harbor Drive between Fifth Avenue and Park Boulevard.

Pacific Highway

Pacific Highway provides two-direction, north-south travel along the western side of Downtown San Diego. It runs from the Midway-Pacific Highway community in the north and terminates just south of Harbor Drive in Seaport Village. Pacific Highway is generally six lanes and alternates between a raised median and a striped median with left-turn pockets. Pacific Highway has a posted speed limit of 35 MPH throughout the study area. On-street parallel parking is intermittently permitted along each side of the road within the Downtown community. Sidewalks are present along both sides of the roadway.

4.2 Existing Non-Event Conditions

4.2.1 Roadway and Intersection Geometrics and Volumes

Figure 4-1 displays the existing intersection geometrics for the key study area intersections. Figure 4-2 displays existing roadway geometrics for Harbor Drive and Pacific Highway.

This scenario provides an analysis of the existing traffic conditions on a typical non-event day. Non-Event Conditions will serve as base conditions to compare Design Event Conditions against in order to determine potential impacts resulting from the Proposed Project.

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Figure 4-1
Existing Roadway Geometrics

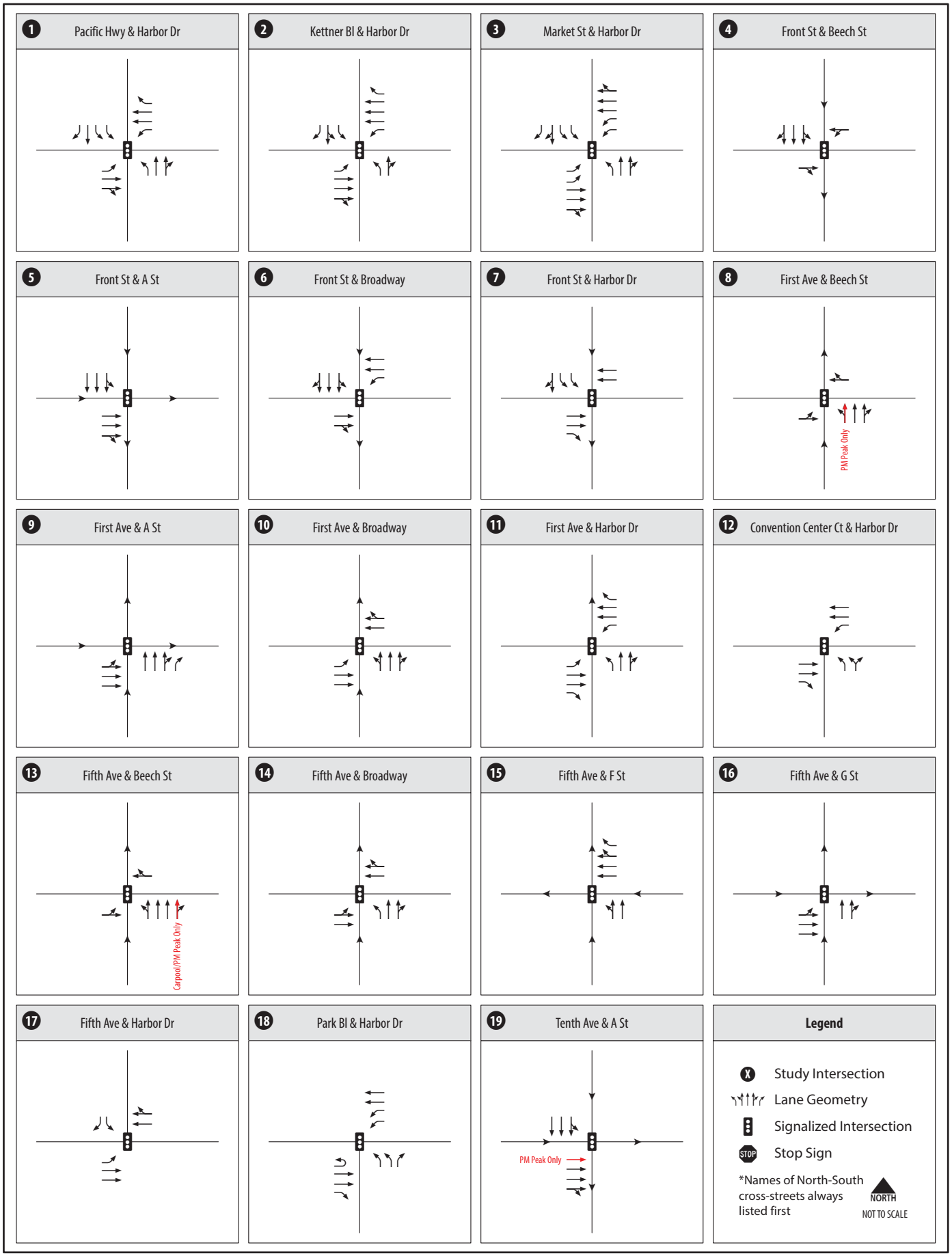

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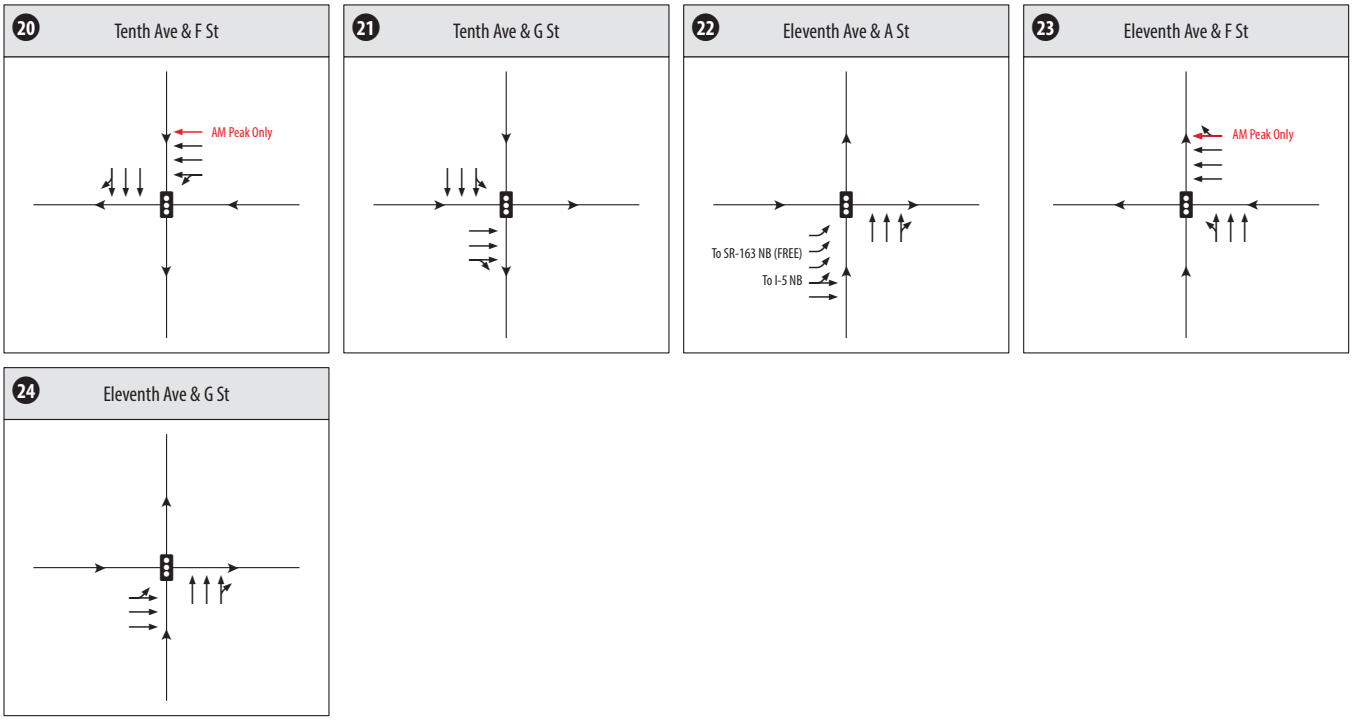
Figure 4-2
Existing Intersection Geometrics
(Intersections 1-19)



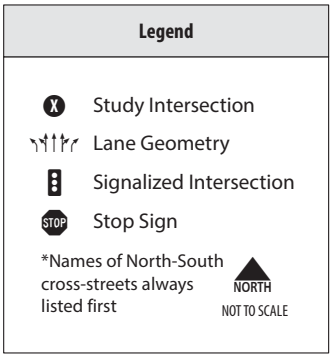


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Figure 4-2
Existing Intersection Geometrics
(Intersections 20-24)

Existing Non-Event Condition Average Daily Traffic (ADT) volumes are shown for study segments in **Figure 4-3**. Existing intersection turning movements under Non-Event Conditions are displayed in **Figure 4-4** for the Event Arrival and Event Dismissal times. Intersection and segment traffic counts for Existing Non-Event Conditions were conducted on Saturday, September 17, 2016. Count worksheets are provided in **Appendix B**.

4.2.2 Analysis Results

Level of Service (LOS) analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS, and freeway segment analyses are discussed separately below.

Roadway Segment Analysis

Existing Non-Event Conditions LOS analysis results for key study roadway segments are presented in **Table 4.1**.

Table 4.1 Existing Non-Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	12,275	0.614	C
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	15,826	0.317	A
	Market Street to Front Street	5-lane w/ raised median	45,000	14,255	0.317	A
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	15,497	0.387	B
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	16,746	0.419	B
	South of Park Boulevard	4-lane w/ raised median	40,000	14,052	0.351	A
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,116	0.182	A

Source: Accurate Video Counts (2016); Chen Ryan Associates, Inc. (2016)

Notes: V/C = Volume to Capacity Ratio

As shown, all study roadway segments currently operate at an acceptable LOS E or better under Existing Non-Event Conditions.

Intersection Analysis

Existing Non-Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in **Table 4.2** for the Event Arrival and Event Dismissal peak periods. All intersections are currently signalized. LOS calculation worksheets are provided in **Appendix E**.

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Figure 4-3
Average Daily Traffic Volumes - Existing Non-Event Conditions

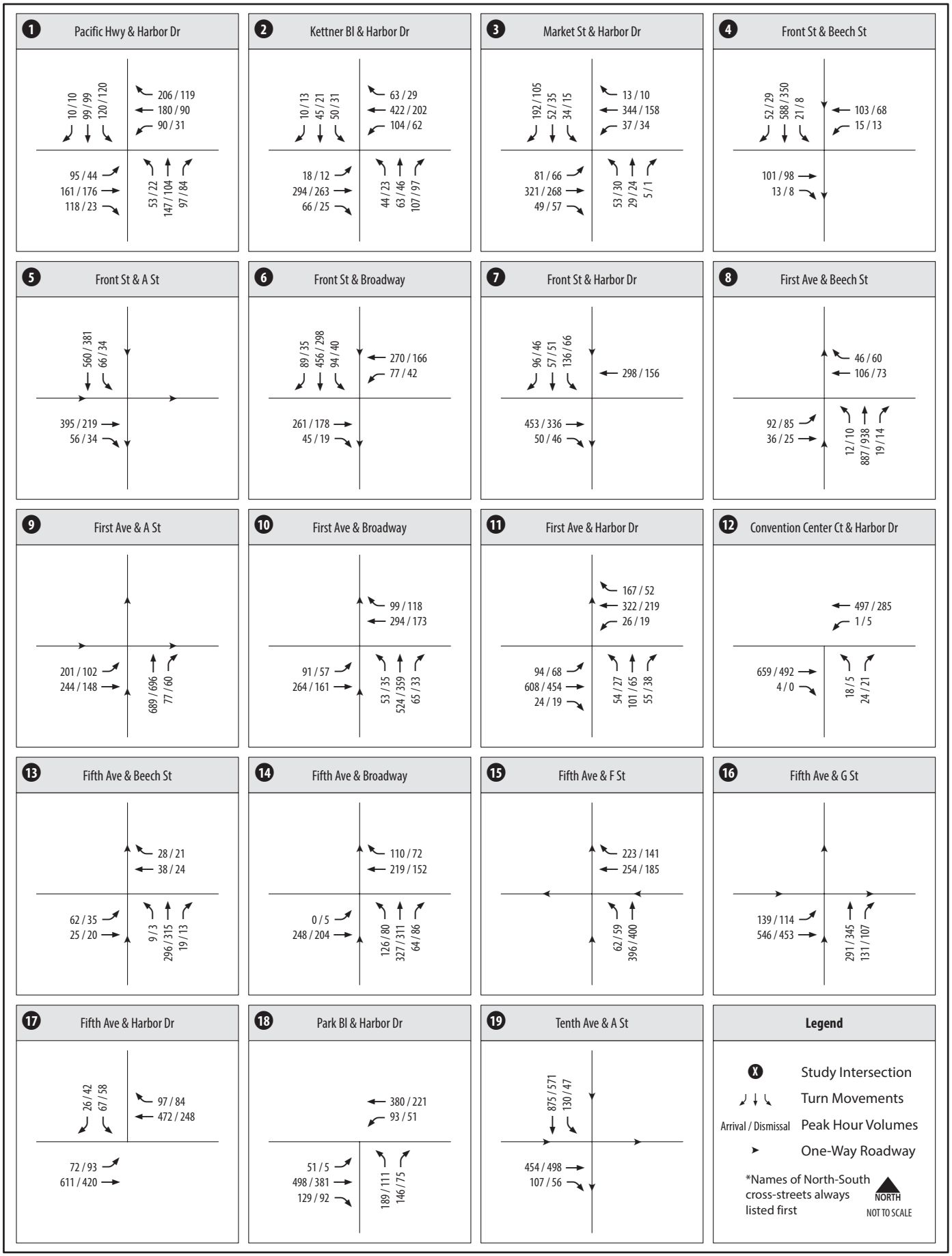

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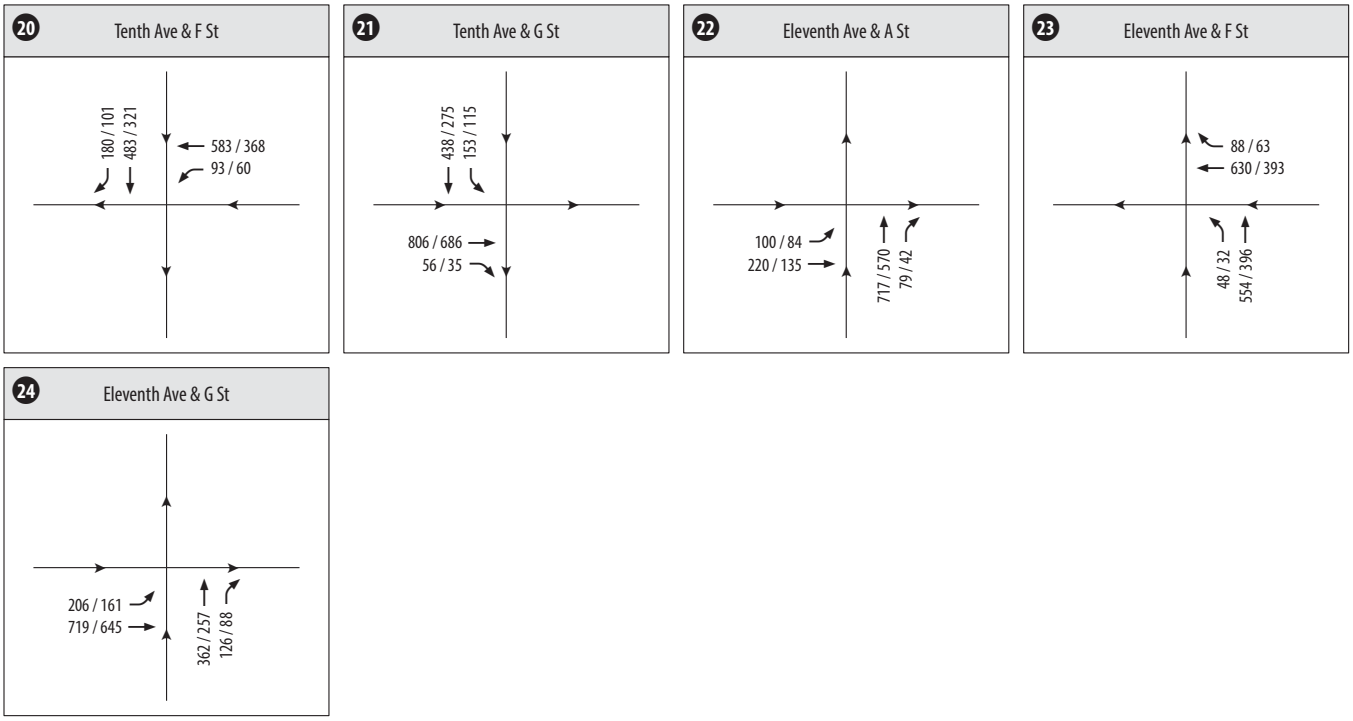
Figure 4-4
Intersection Turning Movements - Existing Non-Event Conditions (Intersections 1-19)



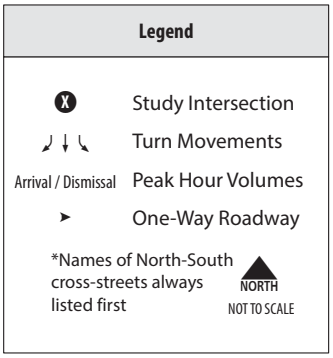


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Figure 4-4
Intersection Turning Movements - Existing Non-Event Conditions (Intersections 20-24)

Table 4.2 Existing Non-Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	16.1	B	16.4	B
2	Kettner Boulevard / Harbor Drive	16.8	B	15.3	B
3	Market Street / Harbor Drive	14.4	B	14.5	B
4	Front Street / Beech Street	11.1	B	14.0	B
5	Front Street / A Street	8.5	A	10.4	B
6	Front Street / Broadway	16.0	B	22.4	C
7	Front Street / Harbor Drive	6.7	A	6.3	A
8	First Avenue / Beech Street	7.5	A	8.6	A
9	First Avenue / A Street	15.0	B	6.6	A
10	First Avenue / Broadway	14.3	B	13.0	B
11	First Avenue / Harbor Drive	10.2	B	10.1	B
12	Convention Center Court / Harbor Drive	3.6	A	4.0	A
13	Fifth Avenue / Beech Street	12.7	B	12.1	B
14	Fifth Avenue / Broadway	7.1	A	10.8	B
15	Fifth Avenue / F Street	10.0	A	14.6	B
16	Fifth Avenue/ G Street	13.6	B	17.9	B
17	Fifth Avenue / Harbor Drive	9.4	A	9.6	A
18	Park Boulevard / Harbor Drive	9.9	A	9.1	A
19	Tenth Avenue / A Street	13.4	B	14.1	B
20	Tenth Avenue / F Street	21.9	C	23.4	C
21	Tenth Avenue / G Street	16.4	B	12.9	B
22	Eleventh Avenue / A Street	11.0	B	9.4	A
23	Eleventh Avenue / F Street	17.8	B	7.4	A
24	Eleventh Avenue / G Street	7.4	A	8.7	A

Source: Accurate Video Counts (2016); Chen Ryan Associates, Inc. (2016)

As shown, all key study area intersections currently operate at an acceptable LOS E or better under Existing Non-Event Conditions.

Freeway Mainline Analysis

As stated in Section 3.2, the peak hour under Design Event Conditions was determined to be the 6:00 PM to 7:00 PM hour. Therefore, the Proposed Project will not add 50 or more peak hour trips on any single freeway mainline segment so the analysis is provided for informational purposes. Consistent with Design Event Conditions, the peak hour analyzed for freeway mainline LOS utilizes the 6:00 PM to 7:00 PM hour. Smaller events may occur outside of the analyzed time period, however, they will not be the scale of Design Event Conditions, which represents the worst-case scenario (10,000 attendees).

Table 4.3 displays freeway segment analysis LOS results under Existing Non-Event Conditions. Volumes were obtained from Caltrans PeMS for Fridays during the month of September 2016 and averaged to better reflect Design Event Conditions and are included in Appendix F.

Table 4.3 Existing Non-Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Lanes[2]	Capacity[3]	D[4]	K[5]	HVF[6]	Peak Hour Volume	V/C[7]	LOS
I-5	Grape Street to First Avenue	179,000	NB	4M	9,400	41.0%	4.5%	2.2%	3,400	0.36	B
			SB	4M	9,400	59.0%	6.8%	3.9%	7,500	0.80	D
	First Avenue to SR-163	200,000	NB	4M	9,400	35.8%	4.2%	3.7%	3,200	0.34	B
			SB	5M	11,750	64.2%	6.5%	3.1%	8,800	0.75	D
	SR-163 to B Street	248,000	NB	6M	14,100	50.7%	4.7%	3.1%	6,300	0.45	B
			SB	6M	14,100	49.3%	6.3%	1.3%	8,200	0.58	C
	B Street to SR-94	186,000	NB	4M	9,400	38.5%	4.3%	2.2%	3,200	0.34	B
			SB	4M	9,400	61.5%	5.9%	2.9%	7,100	0.76	D
	SR-94 to Imperial Avenue	184,000	NB	5M	11,750	44.7%	4.5%	1.3%	3,900	0.33	B
			SB	5M	11,750	55.3%	5.8%	1.6%	6,200	0.53	C
	Imperial Avenue to SR-75	176,000	NB	5M	11,750	47.8%	4.4%	2.9%	3,900	0.33	B
			SB	5M	11,750	52.2%	6.0%	3.9%	5,800	0.49	B
SR-163	South of Robinson Avenue	111,000	NB	2M	4,700	52.5%	5.4%	13.0%	3,300	0.70	C
			SB	2M	4,700	47.5%	5.2%	1.3%	2,900	0.62	C
SR-94	West of 25th Street	143,000	EB	4M	9,400	53.1%	6.0%	0.8%	4,800	0.51	C
			WB	4M	9,400	46.9%	5.4%	1.8%	3,800	0.40	B

Source: Caltrans PeMS (2016); Chen Ryan Associates, Inc. (2016)

Notes:

[1] SANDAG Series 13 Forecast Year 2020.
[2] M = Mainline
[3] Capacity is calculated as 2,350 vehicles per main lane during the peak hour.
[4] D = Directional Split
[5] K = Peak hour %
[6] HVF = Heavy vehicle factor
[7] V/C = Volume to capacity ratio

As shown, all study freeway segments operate at an acceptable LOS D or better.

4.3 Existing Plus Current Event Conditions

This scenario provides an analysis of the existing traffic conditions on a current event day. The current event analysis utilizes the average event attendance for the 2016 season, 2,285 attendees. This scenario is considered to be the baseline condition to identify the impacts associated with the expansion of the current events (from 2,285 attendees to 10,000).

4.3.1 Roadway and Intersection Volumes

Existing Plus Current Event Condition Average Daily Traffic (ADT) volumes are shown for study segments in Figure 4-5. Intersection turning movements under Existing Plus Current Event Conditions are displayed in Figure 4-6 for the Event Arrival and Event Dismissal times.

4.3.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

Roadway Segment Analysis

Existing Plus Current Event Conditions LOS analysis results for key study roadway segments are presented in Table 4.4.

Table 4.4 Existing Plus Current Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	12,323	0.616	C
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	15,904	0.318	A
	Market Street to Front Street	5-lane w/ raised median	45,000	14,333	0.319	A
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	15,805	0.395	B
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	17,222	0.431	B
	South of Park Boulevard	4-lane w/ raised median	40,000	14,068	0.352	A
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,146	0.183	A

Source: Chen Ryan Associates, Inc. (2016)

Note: V/C = Volume to Capacity Ratio

As shown, all study roadway segments currently operate at an acceptable LOS E or better under Existing Plus Current Event Conditions.

Intersection Analysis

Existing Plus Current Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in Table 4.5 for the Event Arrival and Event Dismissal peak periods. All intersections are currently signalized. During the Event Dismissal, the signals at intersections #12 Convention Center Court / Harbor Drive and #18 Park Boulevard / Harbor Drive are turned off and the Harbor police department provides traffic control at the intersections. LOS calculation worksheets are provided in Appendix G.

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Figure 4-5
Average Daily Traffic Volumes - Existing Plus Current Conditions

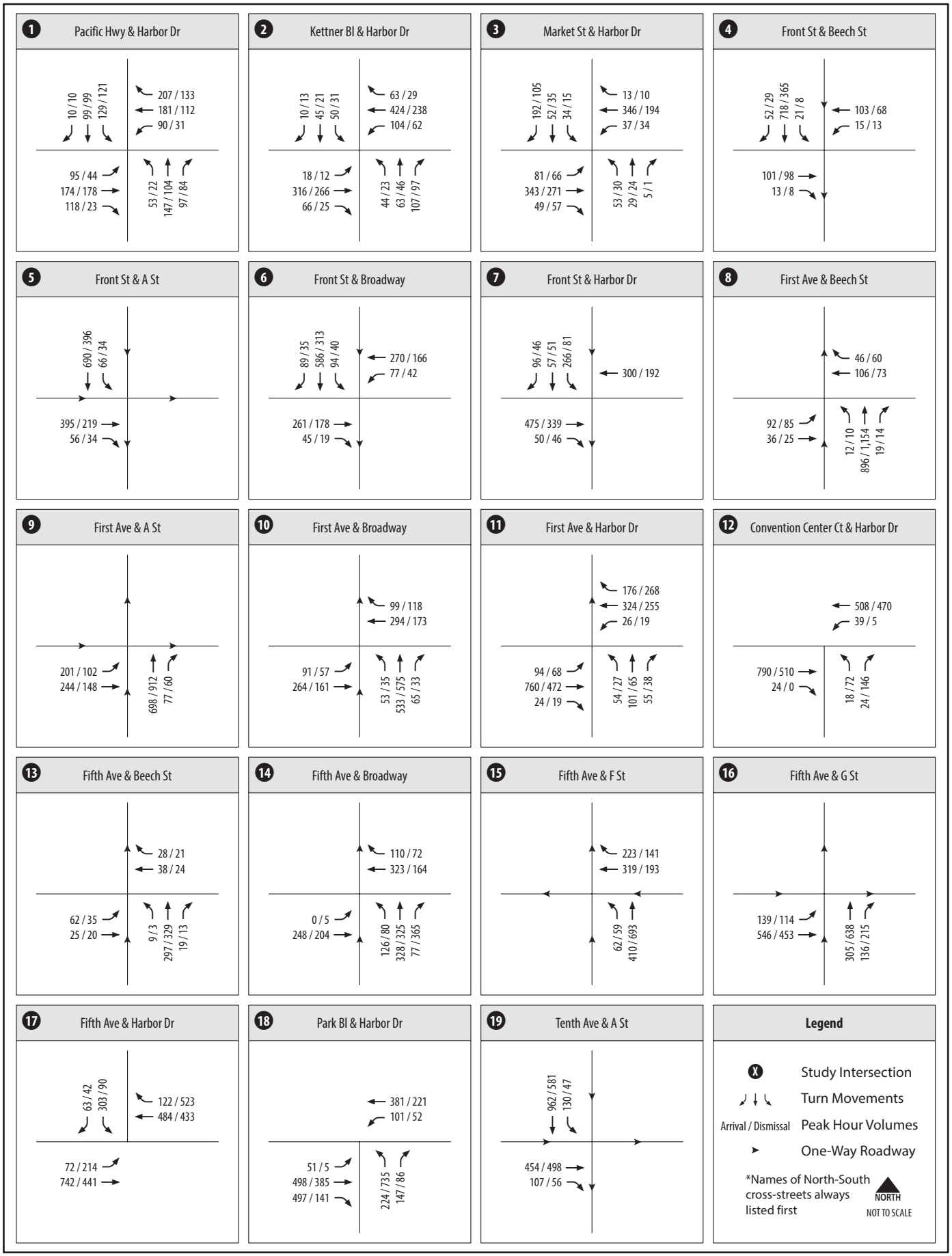

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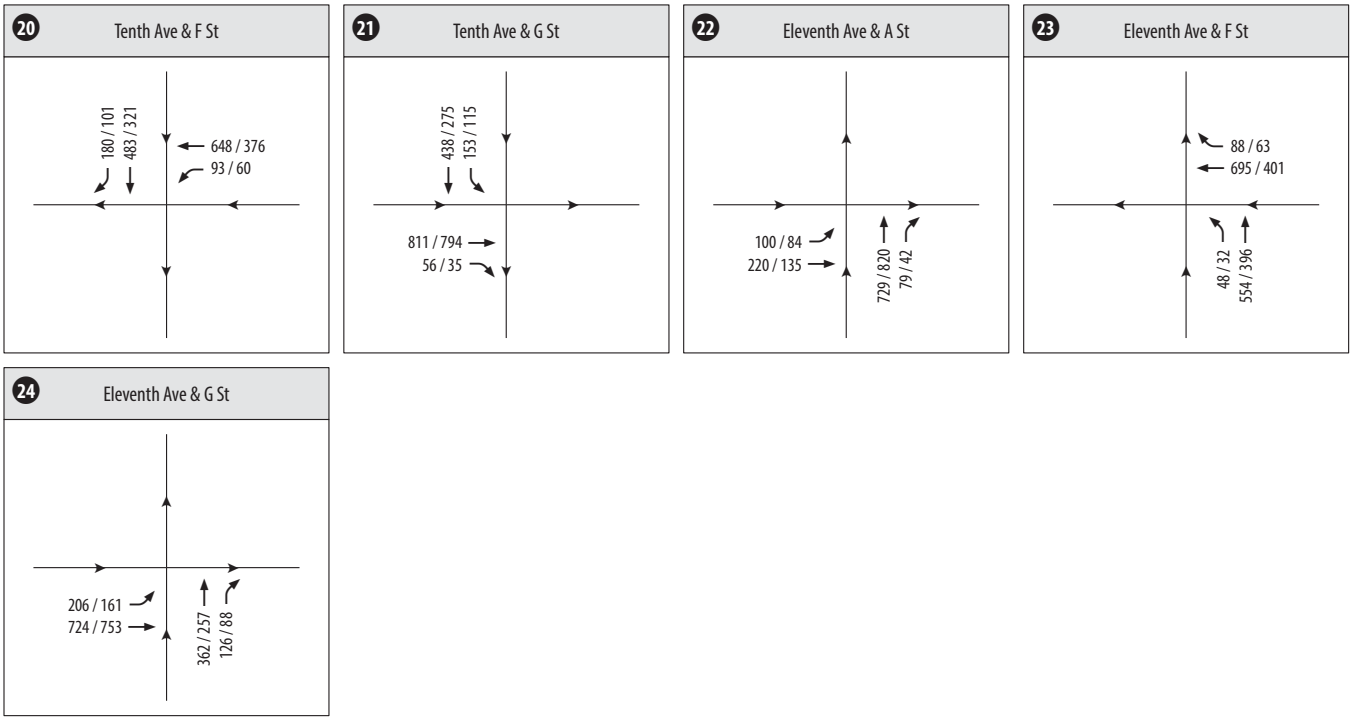
Figure 4-6
Intersection Turning Movements -
Existing Plus Current Event Conditions (Intersections 1-19)



Legend

X	Study Intersection
	Turn Movements
Arrival / Dismissal	Peak Hour Volumes
	One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

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Figure 4-6
Intersection Turning Movements -
Existing Plus Current Event Conditions (Intersections 20-24)

Table 4.5 Existing Plus Current Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	17.8	B	16.4	B
2	Kettner Boulevard / Harbor Drive	18.2	C	15.3	B
3	Market Street / Harbor Drive	16.3	B	14.5	B
4	Front Street / Beech Street	11.1	B	14.1	B
5	Front Street / A Street	8.5	A	10.4	B
6	Front Street / Broadway	16.6	B	22.4	C
7	Front Street / Harbor Drive	8.5	A	6.3	A
8	First Avenue / Beech Street	7.5	A	8.6	A
9	First Avenue / A Street	15.0	B	6.7	A
10	First Avenue / Broadway	17.3	B	13.6	B
11	First Avenue / Harbor Drive	11.2	B	10.1	A
12	Convention Center Court / Harbor Drive	4.7	A	7.5[1]	A[1]
13	Fifth Avenue / Beech Street	13.5	B	12.1	B
14	Fifth Avenue / Broadway	9.8	A	12.3	B
15	Fifth Avenue / F Street	17.9	B	14.6	B
16	Fifth Avenue / G Street	13.9	B	19.9	B
17	Fifth Avenue / Harbor Drive	17.9	B	47.5	D
18	Park Boulevard / Harbor Drive	12.4	B	15.6[1]	B[1]
19	Tenth Avenue / A Street	15.2	B	14.1	B
20	Tenth Avenue / F Street	21.9	C	23.4	C
21	Tenth Avenue / G Street	16.7	B	12.9	B
22	Eleventh Avenue / A Street	12.1	B	10.3	B
23	Eleventh Avenue / F Street	17.8	B	7.4	A
24	Eleventh Avenue / G Street	8.5	A	8.7	A

Source: Chen Ryan Associates, Inc. (2016)

Note:

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

As shown, all study area intersections operate at an acceptable LOS E or better under Existing Plus Current Event Conditions.

Freeway Mainline Analysis

Table 4.6 displays freeway segment analysis LOS results under Existing Plus Current Event Conditions.

Table 4.6 Existing Plus Current Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Existing Plus Current Event		Existing Non-Event	
					V/C	LOS	V/C	LOS
I-5	Grape Street to First Avenue	179,500	NB	3,500	0.37	B	0.36	B
			SB	7,600	0.81	D	0.80	D
	First Avenue to SR-163	200,000	NB	3,200	0.34	B	0.34	B
			SB	8,800	0.75	D	0.75	D
	SR-163 to B Street	248,000	NB	6,300	0.45	B	0.45	B
			SB	8,200	0.58	C	0.58	C
	B Street to SR-94	186,000	NB	3,200	0.34	B	0.34	B
			SB	7,100	0.76	D	0.76	D
	SR-94 to Imperial Avenue	184,000	NB	3,900	0.33	B	0.33	B
			SB	6,200	0.53	C	0.53	C
	Imperial Avenue to SR-75	176,300	NB	3,900	0.33	B	0.33	B
			SB	5,800	0.49	B	0.49	B
SR-163	South of Robinson Avenue	111,300	NB	3,400	0.72	D	0.70	C
			SB	2,900	0.62	C	0.62	C
SR-94	West of 25th Street	143,200	EB	4,800	0.51	C	0.51	C
			WB	3,800	0.40	B	0.40	B

Source: Caltrans PeMS (2016); Chen Ryan Associates, Inc. (2016)

Notes:

V/C = Volume to capacity ratio

[1] Traffic volumes obtained from Caltrans PeMS for Fridays during the month of September 2016 and averaged.

As shown, all study freeway segments operate at an acceptable LOS D or better under Existing Plus Current Event Conditions.

4.4 Existing Plus Design Event Conditions

This scenario provides an analysis of the existing traffic conditions with the addition of traffic resulting from the Proposed Project. The design event analysis utilizes the maximum event attendance of 10,000 attendees.

4.4.1 Roadway and Intersection Volumes

Existing Plus Design Event Condition ADT volumes are shown for study segments in **Figure 4-7**. Existing Plus Design Event Conditions were developed by adding the Design Event Project Trip Assignment (displayed in Figure 3-3a) to the Existing Non-Event Volumes (displayed in Figure 4-3). Existing Plus Design Event Condition intersection turning movements under are displayed in **Figure 4-8** for the Event Arrival and Event Dismissal times.

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Figure 4-7
Average Daily Traffic Volumes - Existing Plus Design Conditions

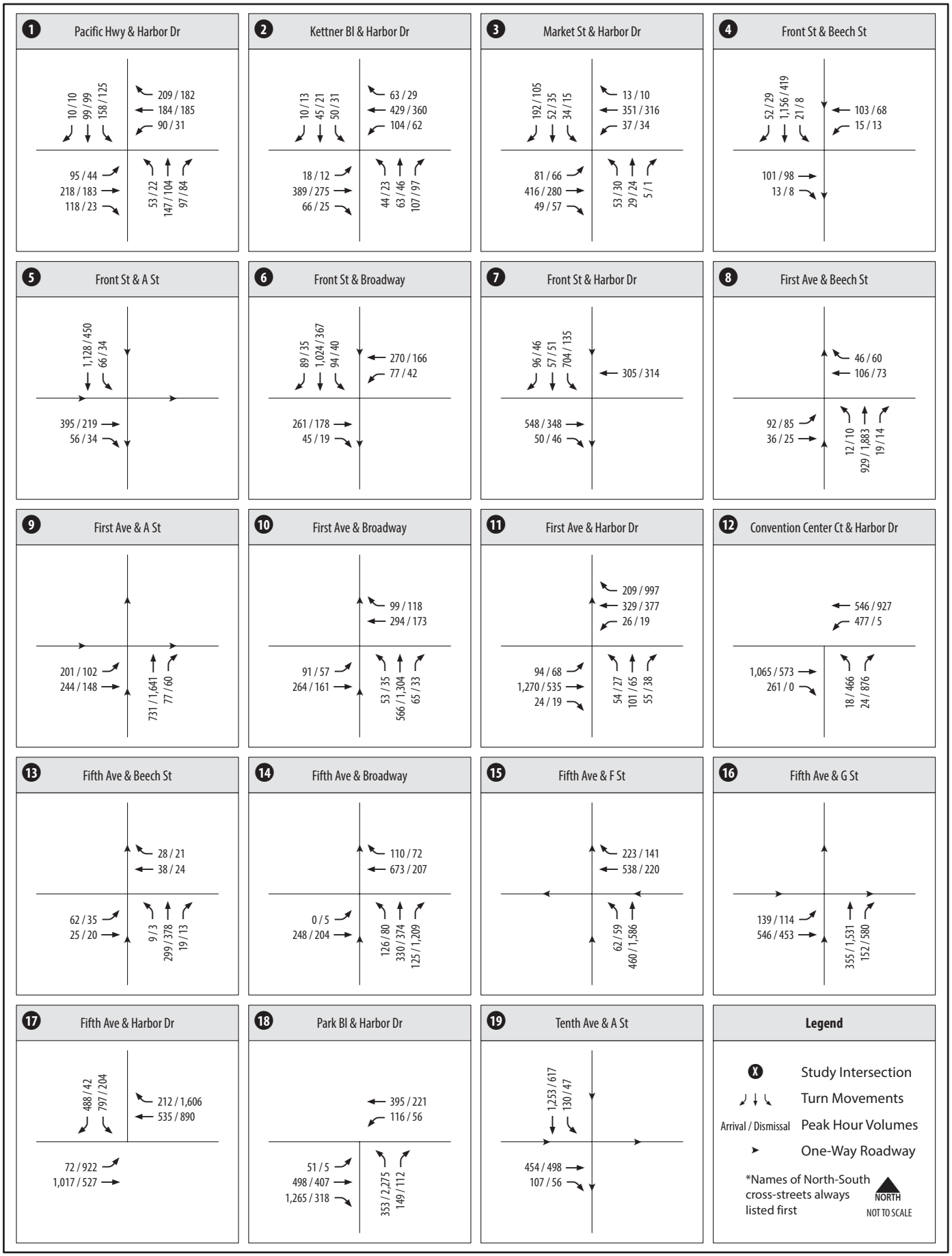
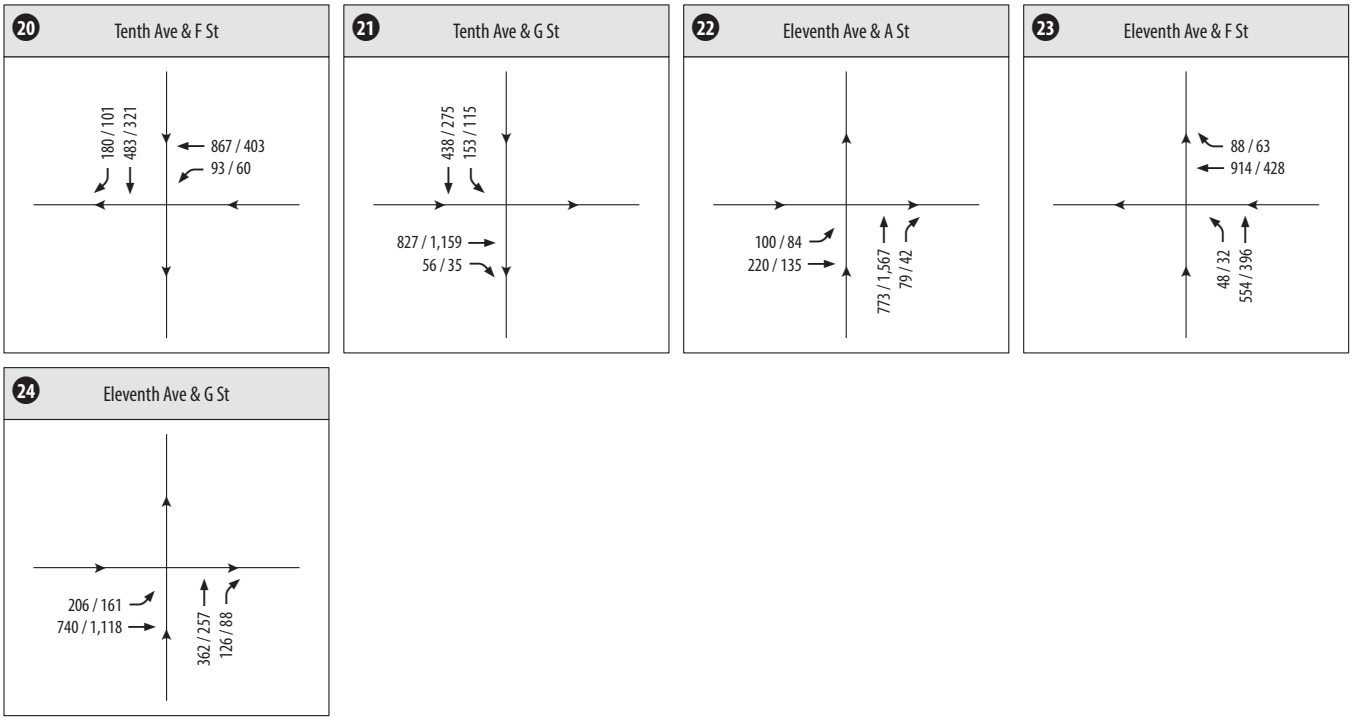


Figure 4-8
Intersection Turning Movements - Existing Plus Design Event Conditions (Intersections 1-19)



Legend

X	Study Intersection
	Turn Movements
Arrival / Dismissal	Peak Hour Volumes
	One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

Figure 4-8
Intersection Turning Movements - Existing Plus Design Event Conditions (Intersections 20-24)

4.4.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS, and freeway analyses are discussed separately below.

Roadway Segment Analysis

Existing Plus Design Event Conditions LOS analysis results for key study roadway segments are presented in **Table 4.7**. The table provides a comparison between Existing Plus Design Event and Existing Plus Current Event Conditions (impacts of expanded events), as well as Existing Plus Design Event and Existing Non-Event Conditions (impacts of new events).

As shown, all study roadway segments would operate at an acceptable LOS E or better under Existing Plus Design Event Conditions.

Intersection Analysis

Intersection LOS and average vehicle delay results for key study intersections under Existing Plus Design Event Conditions are presented in **Table 4.8**. A comparison is shown between Existing Plus Design Event and Existing Plus Current Event Conditions (impacts of expanded events), and Existing Plus Design Event and Existing Non-Event Conditions (impacts of new events). During the Event Dismissal, the signals at intersections #12 Convention Center Court / Harbor Drive and #18 Park Boulevard / Harbor Drive are turned off and the Harbor police department provides traffic control at the intersections. LOS calculation worksheets are provided in **Appendix H**.

As shown, all study area intersections operate at an acceptable LOS E or better under Existing Plus Design Event Conditions, with the exception of the following:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[9]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[9]

Freeway Mainline Analysis

Table 4.9 displays freeway segment analysis LOS results under Existing Plus Design Event Conditions.

As shown, all study freeway segments operate at an acceptable LOS D or better under Existing Plus Design Event Conditions.

[9] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 4.7 Existing Plus Design Event Conditions Segment LOS

Roadway	Segment	Cross-Section	Threshold (LOS E)	Existing Plus Design Event			Existing Plus Current Event					Existing Non-Event				
				ADT	V/C	LOS	ADT	V/C	LOS	Δ	Sig?	ADT	V/C	LOS	Δ	Sig?
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	12,479	0.624	C	12,323	0.616	C	0.008	No	12,275	0.614	C	0.010	No
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	16,166	0.323	A	15,904	0.318	A	0.005	No	15,826	0.317	A	0.007	No
	Market Street to Front Street	5-lane w/ raised median	45,000	14,595	0.324	A	14,333	0.319	A	0.006	No	14,255	0.317	A	0.008	No
	First Ave to Convention Center Court	4-lane w/ raised median	40,000	17,865	0.447	B	15,805	0.395	B	0.052	No	15,497	0.387	B	0.059	No
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	19,163	0.479	B	17,222	0.431	B	0.049	No	16,746	0.419	B	0.060	No
	South of Park Boulevard	4-lane w/ raised median	40,000	14,188	0.355	A	14,068	0.352	A	0.003	No	14,052	0.351	A	0.003	No
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,252	0.185	A	9,146	0.183	A	0.002	No	9,116	0.182	A	0.003	No

Source: Accurate Video Counts (2016); Chen Ryan Associates, Inc. (2016)

Note: V/C = Volume to Capacity Ratio

Table 4.8 Existing Plus Design Event Conditions Peak Hour Intersection LOS

#	Intersection	Existing Plus Design Event				Existing Plus Current Event						Existing Non-Event					
		Arrival		Dismissal		Arrival		Dismissal				Arrival		Dismissal			
		Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrive / Dis	Sig?	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrive / Dis	Sig?
1	Pacific Highway / Harbor Drive	18.4	B	16.4	B	17.8	B	16.4	B	0.6 / 0.0	No	16.1	B	16.4	B	2.3 / 0.0	No
2	Harbor Drive / Kettner Blvd	18.2	B	15.3	B	18.2	C	15.3	B	0.0 / 0.0	No	16.8	B	15.3	B	1.4 / 0.0	No
3	Market Street / Harbor Drive	16.3	B	14.5	B	16.3	B	14.5	B	0.0 / 0.0	No	14.4	B	14.5	B	1.9 / 0.0	No
4	Front Street / Beech Street	12.0	B	14.1	B	11.1	B	14.1	B	0.9 / 0.0	No	11.1	B	14.0	B	0.9 / 0.1	No
5	Front Street / A Street	8.5	A	10.4	B	8.5	A	10.4	B	0.0 / 0.0	No	8.5	A	10.4	B	0.0 / 0.0	No
6	Front Street / Broadway	16.6	B	22.4	C	16.6	B	22.4	C	0.0 / 0.0	No	16.0	B	22.4	C	0.6 / 0.0	No
7	Front Street / Harbor Drive	12.4	B	6.6	A	8.5	A	6.3	A	3.9 / 0.3	No	6.7	A	6.3	A	5.7 / 0.3	No
8	First Avenue / Beech Street	7.5	A	27.5	C	7.5	A	8.6	A	0.0 / 18.9	No	7.5	A	8.6	A	0.0 / 18.9	No
9	First Avenue / A Street	15.0	B	8.5	A	15.0	B	6.7	A	0.0 / 1.8	No	15.0	B	6.6	A	0.0 / 1.9	No
10	First Avenue / Broadway	19.8	B	16.9	B	17.3	B	13.6	B	2.5 / 3.3	No	14.3	B	13.0	B	5.5 / 3.9	No
11	First Avenue / Harbor Drive	11.7	B	18.8	B	11.2	B	10.1	A	0.5 / 8.7	No	10.2	B	10.1	B	1.5 / 8.7	No
12	Convention Ctr Ct / Harbor Dr	98.7	**F**	234.2[1]	**F**[1]	4.7	A	7.5[1]	A[1]	94.0 / 226.7[1]	**Yes**	3.6	A	4.0[1]	A[1]	95.1[1] / 230.2[1]	**Yes**
13	Fifth Avenue / Beech Street	13.5	B	12.2	B	13.5	B	12.1	B	0.0 / 0.1	No	12.7	B	12.1	B	0.8 / 0.1	No
14	Fifth Avenue / Broadway	12.3	B	105.6	**F**	9.8	A	12.3	B	2.5 / 93.3	**Yes**	7.1	A	10.8	B	5.2 / 94.8	**Yes**
15	Fifth Avenue / F Street	23.0	C	16.6	B	17.9	B	14.6	B	5.1 / 2.0	No	10.0	A	14.6	B	13.0 / 2.0	No
16	Fifth Avenue / G Street	14.0	B	182.8	**F**	13.9	B	19.9	B	0.1 / 162.9	**Yes**	13.6	B	17.9	B	0.4 / 164.9	**Yes**
17	Fifth Avenue / Harbor Drive	179.1	**F**	964.7	**F**	17.9	B	47.5	D	161.2 / 917.2	**Yes**	9.4	A	9.6	A	169.7 / 955.1	**Yes**
18	Park Boulevard / Harbor Drive	45.9	D	216.0[1]	**F**[1]	12.4	B	15.6[1]	B[1]	33.5 / 200.4[1]	**Yes**	9.9	A	9.1[1]	A[1]	36.0 / 206.9[1]	**Yes**
19	Tenth Avenue / A Street	17.2	B	14.4	B	15.2	B	14.1	B	2.0 / 0.3	No	13.4	B	14.1	B	3.8 / 0.3	No
20	Tenth Avenue / F Street	21.9	C	23.4	C	21.9	C	23.4	C	0.0 / 0.0	No	21.9	C	23.4	C	0.0 / 0.0	No
21	Tenth Avenue / G Street	17.2	B	13.0	B	16.7	B	12.9	B	0.5 / 0.1	No	16.4	B	12.9	B	0.8 / 0.1	No
22	Eleventh Avenue / A Street	12.1	B	13.9	B	12.1	B	10.3	B	0.0 / 3.6	No	11.0	B	9.4	A	1.1 / 4.5	No
23	Eleventh Avenue / F Street	17.8	B	7.4	A	17.8	B	7.4	A	0.0 / 0.0	No	17.8	B	7.4	A	0.0 / 0.0	No
24	Eleventh Avenue / G Street	8.5	A	8.7	A	8.5	A	8.7	A	0.0 / 0.0	No	7.4	A	8.7	A	1.1 / 0.0	No

Source: Chen Ryan Associates, Inc. (2016)

Note: **Bold** letter indicates unacceptable LOS.

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 4.9 Existing Plus Design Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Existing Plus Design Event		Existing Plus Current Event				Existing Non-Event			
					V/C	LOS	V/C	LOS	Δ V/C	Sig?	V/C	LOS	Δ V/C	Sig?
I-5	Grape Street to First Avenue	181,000	NB	3,500	0.37	B	0.37	B	0.05	No	0.36	B	0.08	No
			SB	7,600	0.81	D	0.81	D	0.05	No	0.80	D	0.08	No
	First Avenue to SR-163	200,000	NB	3,200	0.34	B	0.34	B	0.00	No	0.34	B	0.00	No
			SB	8,800	0.75	D	0.75	D	0.00	No	0.75	D	0.00	No
	SR-163 to B Street	248,000	NB	6,300	0.45	B	0.45	B	0.00	No	0.45	B	0.00	No
			SB	8,200	0.58	C	0.58	C	0.00	No	0.58	C	0.00	No
	B Street to SR-94	186,000	NB	3,200	0.34	B	0.34	B	0.00	No	0.34	B	0.00	No
			SB	7,100	0.76	D	0.76	D	0.00	No	0.76	D	0.00	No
	SR-94 to Imperial Avenue	184,000	NB	3,900	0.33	B	0.33	B	0.00	No	0.33	B	0.00	No
			SB	6,200	0.53	C	0.53	C	0.00	No	0.53	C	0.00	No
	Imperial Avenue to SR-75	177,400	NB	3,900	0.33	B	0.33	B	0.03	No	0.33	B	0.04	No
			SB	5,900	0.50	C	0.49	B	0.03	No	0.49	B	0.04	No
SR-163	South of Robinson Avenue	112,400	NB	3,400	0.72	D	0.72	D	0.07	No	0.70	C	0.10	No
			SB	2,900	0.62	C	0.62	C	0.07	No	0.62	C	0.10	No
SR-94	West of 25th Street	144,000	EB	4,800	0.51	C	0.51	C	0.03	No	0.51	C	0.04	No
			WB	3,800	0.40	B	0.40	B	0.02	No	0.40	B	0.03	No

Source: Caltrans PeMS (2016); Chen Ryan Associates, Inc. (2016)

Notes:

V/C = Volume to capacity ratio

[1] Traffic volumes obtained from Caltrans PeMS for Fridays during the month of September 2016 and averaged.

4.5 Impact Significance and Mitigation – Non-Event to Design Event

Based upon the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Existing Non-Event Conditions would cause significant impacts to the following intersections:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[10]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[10]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection.

4.6 Impact Significance and Mitigation – Current Event to Design Event

Based upon the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Existing Current Event Conditions would cause significant impacts to the following intersections:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[10]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[10]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection.

[10] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

5.0 Near-Term Year 2020 Traffic Conditions

This chapter provides analysis of Near-Term Year 2020 traffic conditions. The following scenarios are analyzed in this chapter:

- Near-Term Year 2020 Non-Event Conditions
- Near-Term Year 2020 Plus Current Event Conditions
- Near-Term Year 2020 Plus Design Event Conditions

5.1 Near-Term Year 2020 Non-Event Traffic Operations

5.1.1 Near-Term Year 2020 Roadway and Intersection Geometrics and Volumes

It is assumed that, under Near-Term Year 2020 Non-Event Conditions, the roadway and intersection geometrics would be identical to those under Existing Conditions, as previously displayed in in Figure 4-1 and 4-2.

Near-Term Year 2020 Base intersection volumes were developed using the same modeling techniques employed for the *Downtown San Diego Near-Term Year 2020 Traffic Assessment Report* (Chen Ryan Associates, August 2015). The model was updated to include the projects included in Appendix J and calibrated to the arrival and departure peaks. Figure 5-1 displays Near-Term Year 2020 Non-Event Condition ADT volumes, while Figure 5-2 displays Near-Term Year 2020 Non-Event Condition peak hour intersection turning movements.

5.1.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

<u>Roadway Segment Analysis</u>
Near-Term Year 2020 Non-Event Conditions LOS analysis results for key study roadway segments are presented in Table 5.1.

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Figure 5-1
Average Daily Traffic Volumes -
Near-Term Year 2020 Non-Event Conditions

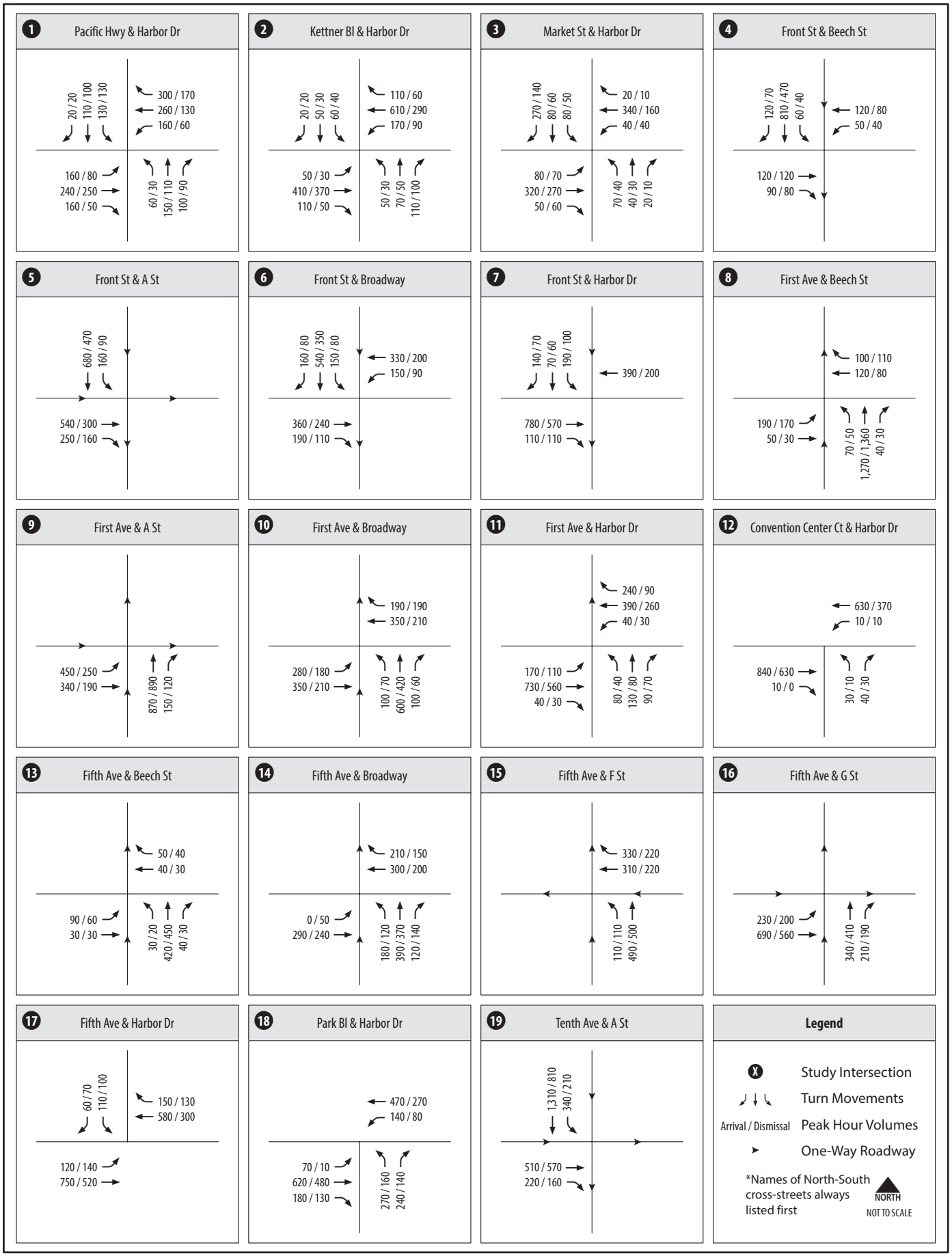

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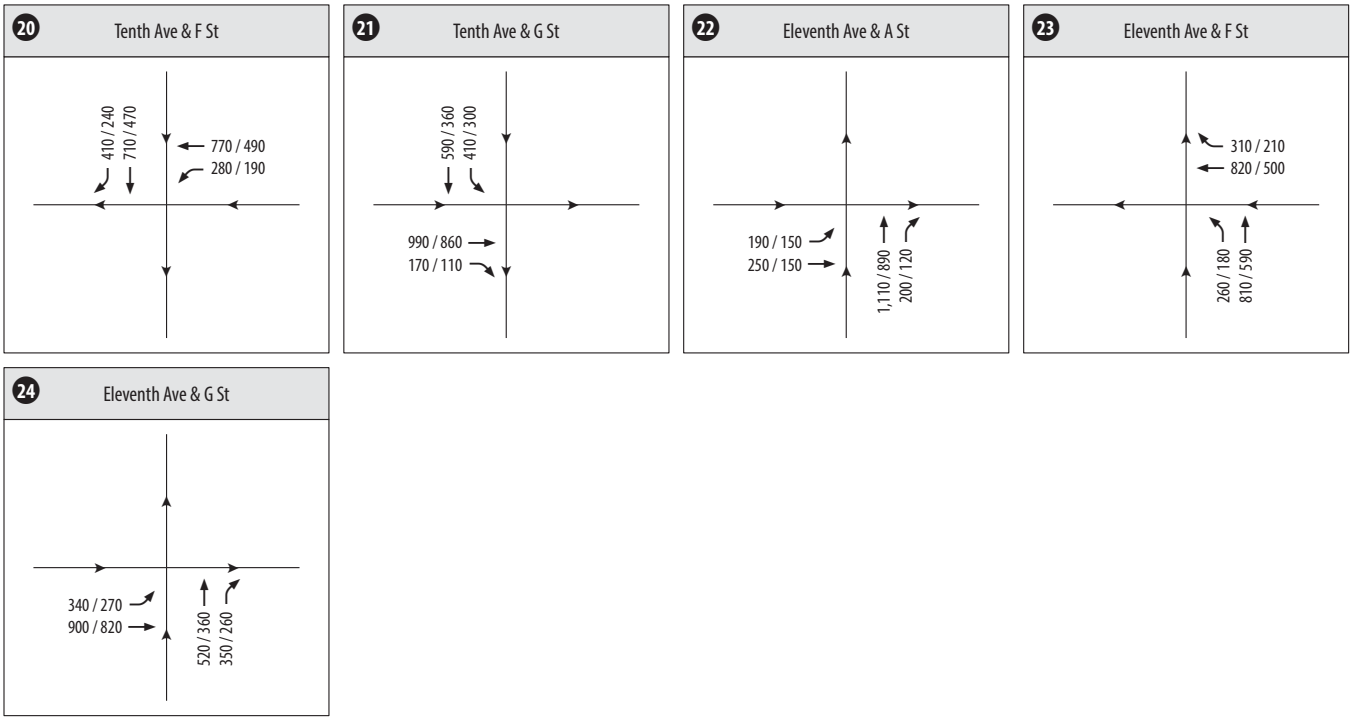
Figure 5-2
Intersection Turning Movements -
Near-Term Year 2020 Non-Event Conditions (Intersections 1-19)



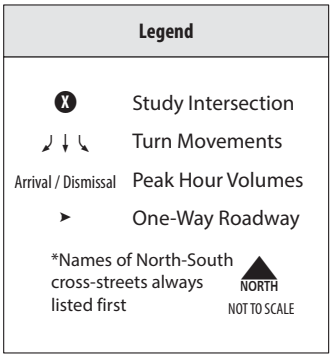


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Figure 5-2
Intersection Turning Movements -
Near-Term Year 2020 Non-Event Conditions (Intersections 20-24)

Table 5.1 Near-Term Year 2020 Non-Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,000	0.900	E
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	23,300	0.466	B
	Market Street to Front Street	5-lane w/ raised median	45,000	24,900	0.553	C
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	19,700	0.493	B
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	21,300	0.533	C
	South of Park Boulevard	4-lane w/ raised median	40,000	17,800	0.445	B
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,300	0.186	A

Source: Chen Ryan Associates, Inc. (2016)

Note: V/C = Volume to Capacity Ratio

As shown, all study roadway segments are projected to operate at an acceptable LOS E or better under Near-Term Year 2020 Non-Event Conditions.

Intersection Analysis

Near-Term Year 2020 Non-Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in Table 5.2. All intersections are currently signalized. LOS calculation worksheets are provided in Appendix K.

Table 5.2 Near-Term Year 2020 Non-Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	43.0	D	16.9	B
2	Kettner Boulevard / Harbor Drive	26.6	C	16.7	B
3	Market Street / Harbor Drive	18.4	B	16.0	B
4	Front Street / Beech Street	12.5	B	14.0	B
5	Front Street / A Street	12.1	B	12.6	B
6	Front Street / Broadway	16.2	B	24.2	C
7	Front Street / Harbor Drive	8.5	A	6.4	A
8	First Avenue / Beech Street	15.4	B	16.8	B
9	First Avenue / A Street	17.5	B	11.3	B
10	First Avenue / Broadway	33.1	C	15.9	B
11	First Avenue / Harbor Drive	14.2	B	11.8	B
12	Convention Center Court / Harbor Drive	4.7	A	4.4	A
13	Fifth Avenue / Beech Street	14.5	B	13.1	B
14	Fifth Avenue / Broadway	10.7	B	12.4	B

Table 5.2 Near-Term Year 2020 Non-Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
15	Fifth Avenue / F Street	15.1	B	15.7	B
16	Fifth Avenue / G Street	14.6	B	18.9	B
17	Fifth Avenue / Harbor Drive	12.4	B	18.0	B
18	Park Boulevard / Harbor Drive	14.2	B	11.4	B
19	Tenth Avenue / A Street	19.8	B	17.2	B
20	Tenth Avenue / F Street	22.3	C	20.5	C
21	Tenth Avenue / G Street	18.8	B	13.8	B
22	Eleventh Avenue / A Street	13.9	B	10.6	B
23	Eleventh Avenue / F Street	20.6	C	8.9	A
24	Eleventh Avenue / G Street	13.4	B	13.4	B

Source: Chen Ryan Associates, Inc. (2016)

As shown, all study area intersections are projected to operate at an acceptable LOS E or better under Near-Term Year 2020 Non-Event Conditions.

Freeway Mainline Analysis

Table 5.3 displays freeway segment analysis LOS results under Near-Term Year 2020 Non-Event Conditions.

Table 5.3 Near-Term Year 2020 Non-Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Lanes[2]	Capacity[3]	D[4]	K[5]	HVF[6]	Peak Hour Volume	V/C[7]	LOS
I-5	Grape Street to First Avenue	171,400	NB	4M	9,400	41.0%	4.5%	2.2%	3,300	0.35	B
			SB	4M	9,400	59.0%	6.8%	3.9%	7,200	0.77	D
	First Avenue to SR-163	233,600	NB	4M	9,400	35.8%	4.2%	3.7%	3,700	0.39	B
			SB	5M	11,750	64.2%	6.5%	3.1%	10,300	0.88	D
	SR-163 to B Street	238,600	NB	6M	14,100	50.7%	4.7%	3.1%	6,000	0.43	B
			SB	6M	14,100	49.3%	6.3%	1.3%	7,900	0.56	C
	B Street to SR-94	177,000	NB	4M	9,400	38.5%	4.3%	2.2%	3,100	0.33	B
			SB	4M	9,400	61.5%	5.9%	2.9%	6,800	0.72	D
	SR-94 to Imperial Avenue	192,900	NB	5M	11,750	44.7%	4.5%	1.3%	4,100	0.35	B
			SB	5M	11,750	55.3%	5.8%	1.6%	6,500	0.55	C
	Imperial Avenue to SR-75	209,300	NB	5M	11,750	47.8%	4.4%	2.9%	4,600	0.39	B
			SB	5M	11,750	52.2%	6.0%	3.9%	6,900	0.59	C
SR-163	South of Robinson Avenue	128,600	NB	2M	4,700	52.5%	5.4%	13.0%	3,900	0.83	D
			SB	2M	4,700	47.5%	5.2%	1.3%	3,300	0.70	C
SR-94	West of 25th Street	153,900	EB	4M	9,400	53.1%	6.0%	0.8%	5,100	0.54	C
			WB	4M	9,400	46.9%	5.4%	1.8%	4,100	0.44	B

Source: SANDAG Series 13 Forecast Year 2020 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

Bold letter indicates unacceptable LOS.

[1] SANDAG Series 13 Forecast Year 2020.

[2] M = Mainline

[3] Capacity is calculated as 2,350 vehicles per main lane during the peak hour.

[4] D = Directional Split

[5] K = Peak hour %

[6] HVF = Heavy vehicle factor

[7] V/C = Volume to capacity ratio

As shown, all study freeway segments operate at an acceptable LOS D or better under Near-Term Year 2020 Non- Event Conditions.

5.2 Near-Term Year 2020 Plus Current Event Conditions

This scenario provides an analysis of the Near-Term Year 2020 traffic conditions on a current event day.

5.2.1 Intersection and Roadway Volumes

Near-Term Year 2020 Plus Current Event Condition ADT volumes are shown for study segments in **Figure 5-3**. Intersection turning movements under Near-Term Year 2020 Plus Current Event Conditions are displayed in **Figure 5-4**.

5.2.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

<u>Roadway Segment Analysis</u>

Near-Term Year 2020 Plus Current Event Conditions LOS analysis results for key study roadway segments are presented in **Figure 5-6** and **Table 5.4**.

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Figure 5-3
Average Daily Traffic Volumes -
Near-Term Year 2020 Current Event Conditions

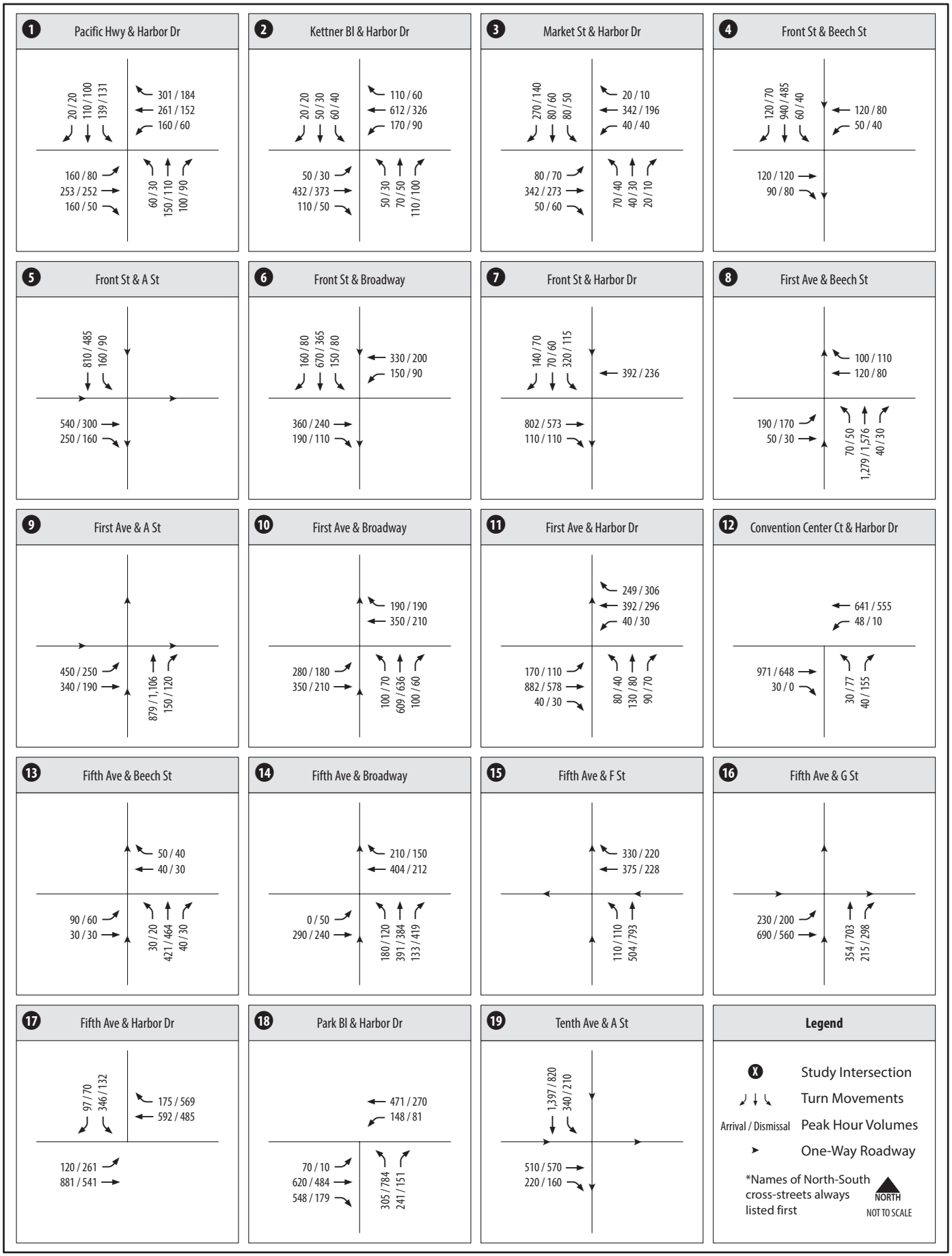

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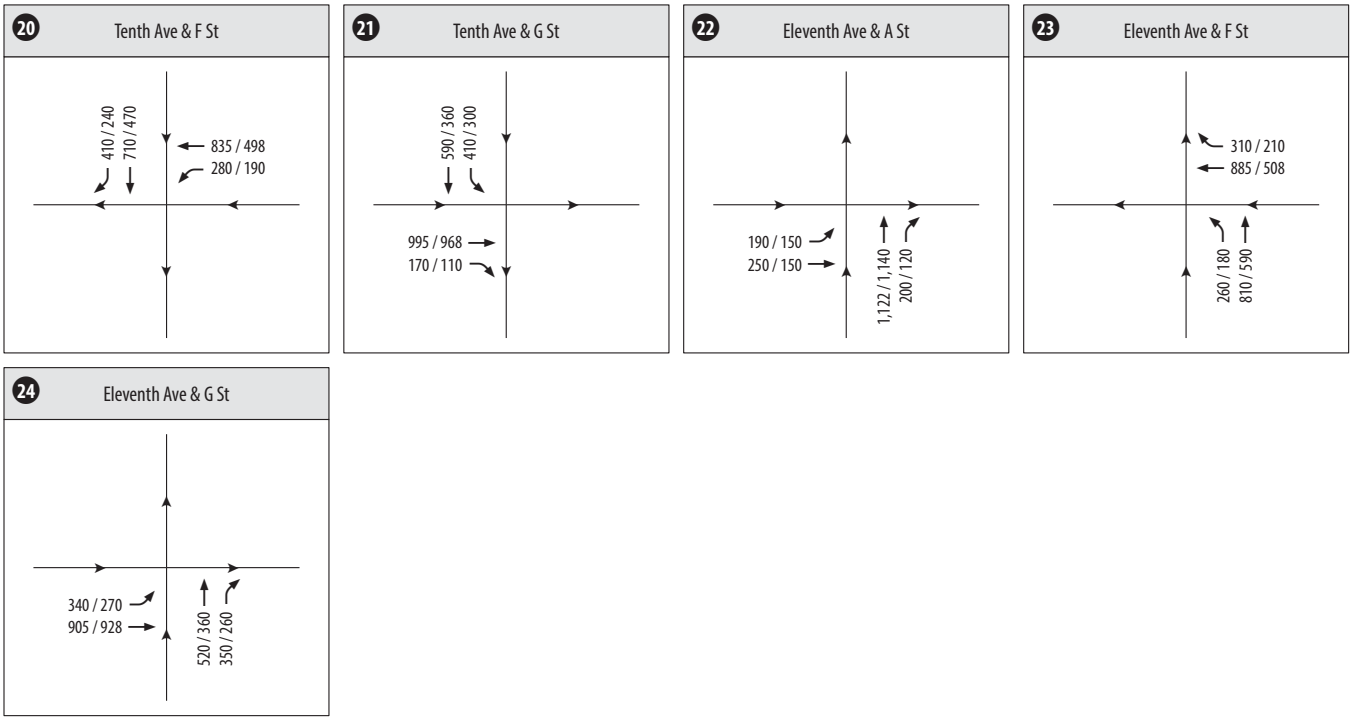
Figure 5-4
Intersection Turning Movements - Near-Term Year 2020
Plus Current Event Conditions (Intersections 1-19)



Legend

X	Study Intersection
	Turn Movements
Arrival / Dismissal	Peak Hour Volumes
	One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

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Figure 5-4
Intersection Turning Movements - Near-Term Year 2020
Plus Current Event Conditions (Intersections 20-24)

Table 5.4 Near-Term Year 2020 Plus Current Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,048	0.902	E
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	23,378	0.468	B
	Market Street to Front Street	5-lane w/ raised median	45,000	24,978	0.555	C
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	20,008	0.500	B
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	21,776	0.544	C
	South of Park Boulevard	4-lane w/ raised median	40,000	17,830	0.446	B
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,330	0.187	A

Source: Chen Ryan Associates, Inc. (2016)

Notes: V/C = Volume to Capacity Ratio

As shown, all study roadway segments are projected to operate at an acceptable LOS E or better under Near-Term Year 2020 Plus Current Event Conditions.

Intersection Analysis

Near-Term Year 2020 Plus Current Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in Table 5.5 for the Event Arrival and Event Dismissal peak periods. All intersections are currently signalized. During the Event Dismissal, the signals at intersections #12 Convention Center Court / Harbor Drive and #18 Park Boulevard / Harbor Drive are turned off and the Harbor police department provides traffic control at the intersections. LOS calculation worksheets are provided in Appendix L.

Table 5.5 Near-Term Year 2020 Plus Current Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	43.4	D	16.9	B
2	Kettner Boulevard / Harbor Drive	26.9	C	16.7	B
3	Market Street / Harbor Drive	18.4	B	16.0	B
4	Front Street / Beech Street	12.7	B	14.0	B
5	Front Street / A Street	12.1	B	12.6	B
6	Front Street / Broadway	16.2	B	24.2	C
7	Front Street / Harbor Drive	9.4	A	6.4	A
8	First Avenue / Beech Street	15.4	B	21.6	C
9	First Avenue / A Street	17.5	B	11.3	B
10	First Avenue / Broadway	33.8	C	16.8	B
11	First Avenue / Harbor Drive	14.2	B	11.8	B
12	Convention Center Court / Harbor Drive	5.8	A	7.6[1]	A[1]
13	Fifth Avenue / Beech Street	14.5	B	13.1	B
14	Fifth Avenue / Broadway	11.4	B	14.0	B
15	Fifth Avenue / F Street	15.5	B	15.7	B
16	Fifth Avenue / G Street	14.7	B	21.7	C
17	Fifth Avenue / Harbor Drive	24.5	C	80.5	**F**
18	Park Boulevard / Harbor Drive	14.8	B	18.3[1]	B[1]
19	Tenth Avenue / A Street	21.7	C	17.3	B
20	Tenth Avenue / F Street	22.3	C	20.5	C
21	Tenth Avenue / G Street	18.9	B	13.9	B
22	Eleventh Avenue / A Street	13.9	B	11.8	B
23	Eleventh Avenue / F Street	20.6	C	8.9	A
24	Eleventh Avenue / G Street	13.4	B	13.4	B

Source: Chen Ryan Associates, Inc. (2016)

Note: **Bold** letter indicates unacceptable LOS.

As shown, all study area intersections are projected operate at an acceptable LOS E under Near-Term Year 2020 Plus Current Event Conditions, with the exception of the following:

17. Fifth Avenue / Harbor Drive – LOS F (Event Dismissal)

<u>Freeway Mainline Analysis</u>

Table 5.6 displays freeway segment analysis LOS results under Near-Term Year 2020 Plus Current Event Conditions.

Table 5.6 Near-Term Year 2020 Plus Current Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Near-Term Plus Current Event		Near-Term Non-Event		Δ V/C	Sig?
					V/C	LOS	V/C	LOS		
I-5	Grape Street to First Avenue	171,900	NB	3,300	0.35	B	0.35	B	0.00	No
			SB	7,200	0.77	D	0.77	D	0.00	No
	First Avenue to SR-163	233,600	NB	3,700	0.39	B	0.39	B	0.00	No
			SB	10,300	0.88	D	0.88	D	0.00	No
	SR-163 to B Street	238,600	NB	6,000	0.43	B	0.43	B	0.00	No
			SB	7,900	0.56	C	0.56	C	0.00	No
	B Street to SR-94	177,000	NB	3,100	0.33	B	0.32	B	0.00	No
			SB	6,800	0.72	D	0.72	D	0.00	No
	SR-94 to Imperial Avenue	192,900	NB	4,100	0.35	B	0.35	B	0.00	No
			SB	6,500	0.55	C	0.56	C	0.00	No
	Imperial Avenue to SR-75	209,600	NB	4,600	0.39	B	0.39	B	0.00	No
			SB	6,900	0.59	C	0.59	C	0.00	No
SR-163	South of Robinson Avenue	128,900	NB	3,900	0.83	D	0.83	D	0.00	No
			SB	3,300	0.70	C	0.72	D	0.00	No
SR-94	West of 25th Street	154,100	EB	5,100	0.54	C	0.55	C	0.00	No
			WB	4,100	0.44	B	0.44	B	0.00	No

Source: SANDAG Series 13 Forecast Year 2020 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

V/C = Volume to capacity ratio

[1] SANDAG Series 13 Forecast Year 2020.

As shown, all study freeway segments operate at an acceptable LOS D or better under Near-Term Year 2020 Plus Current Event Conditions.

5.3 Near-Term Year 2020 Plus Design Event Conditions

This scenario provides an analysis of the Near-Term Year 2020 traffic conditions with the addition of traffic resulting from the Proposed Project.

5.3.1 Intersection and Roadway Volumes

Near-Term Year 2020 Plus Design Event Conditions were developed by combining the Design Event Project Trip Assignment volumes (displayed in Figure 3-3a) with the Near-Term Non-Event Volumes (displayed in Figure 5-1). Near-Term Year 2020 Plus Design Event Condition ADT volumes are shown for study segments in Figure 5-5. Near-Term Year 2020 Plus Design Event Condition intersection turning movements under are displayed in Figure 5-6 for the Event Arrival and Event Dismissal times.

5.3.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately.

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Figure 5-5
Average Daily Traffic Volumes -
Near-Term Year 2020 Design Event Conditions

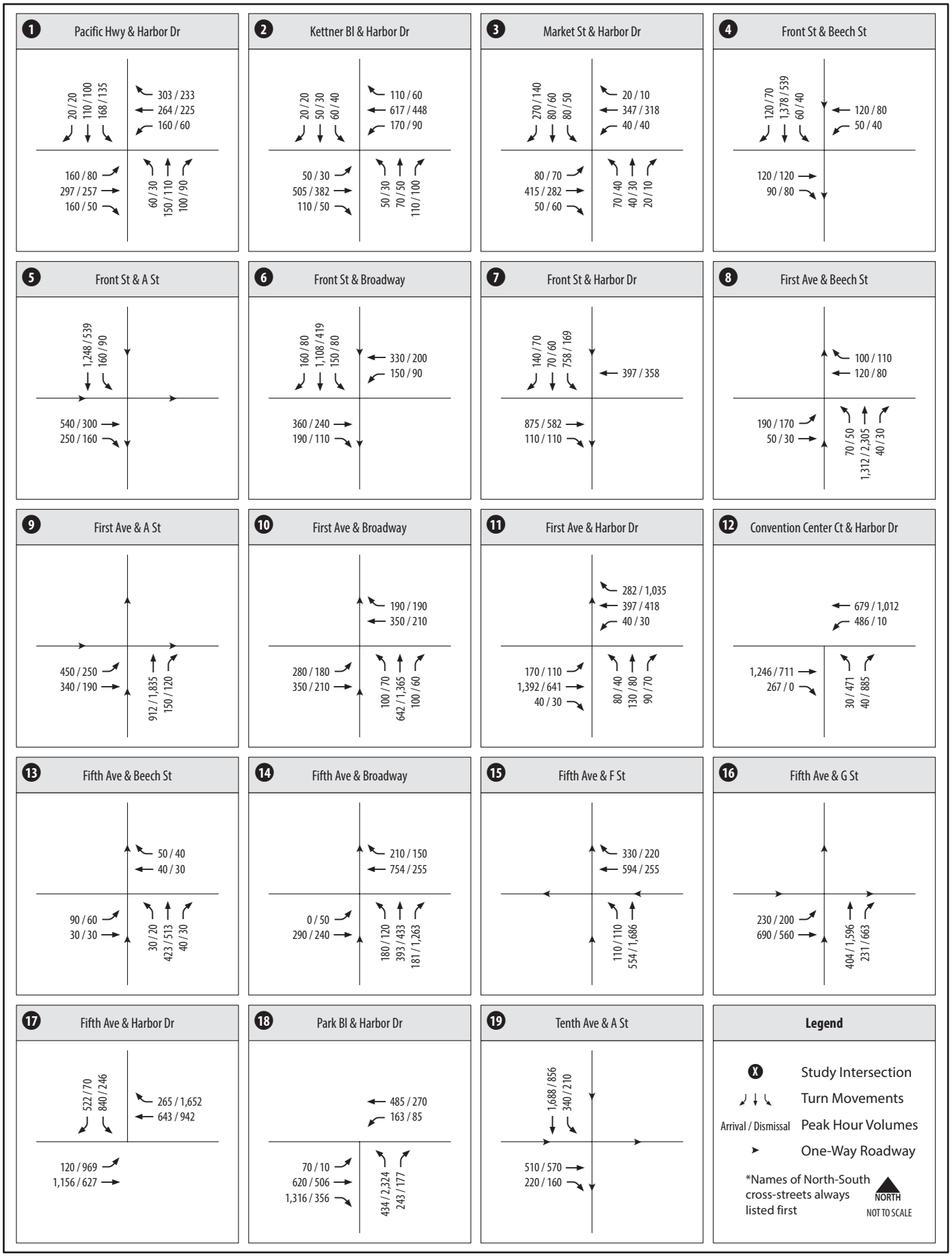

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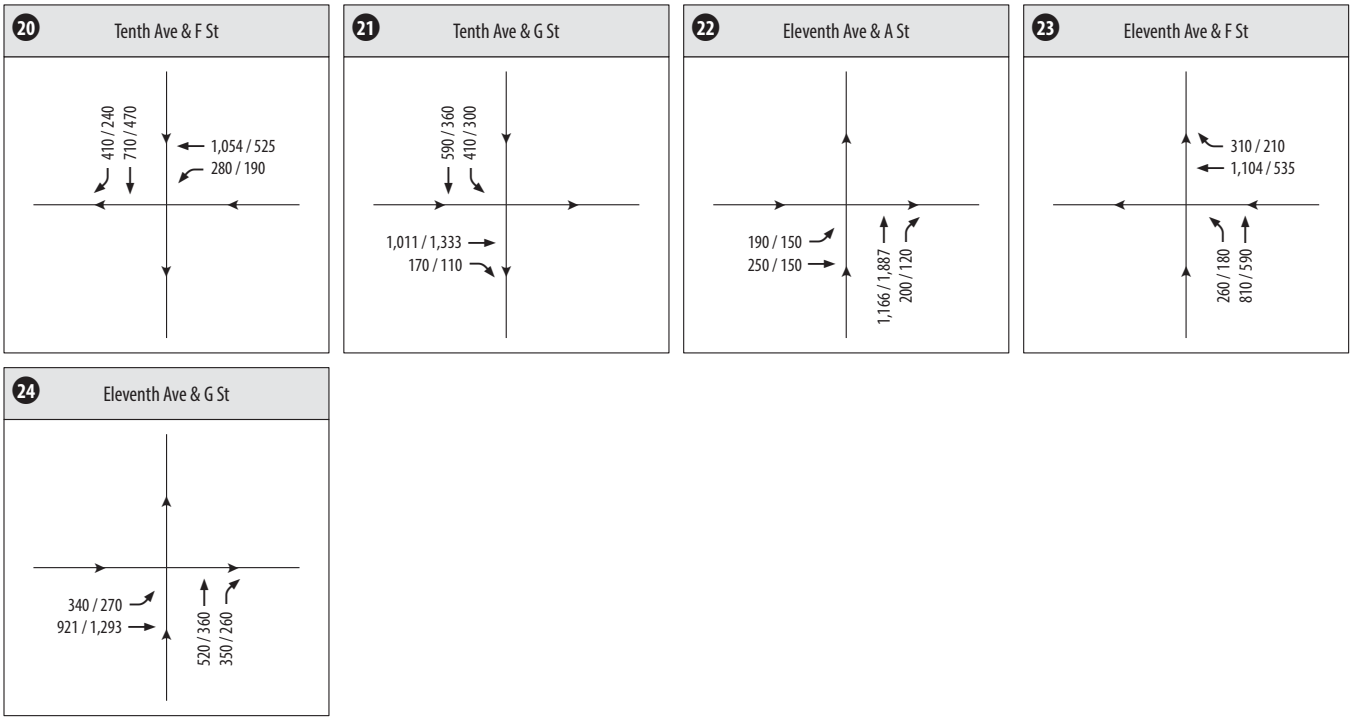
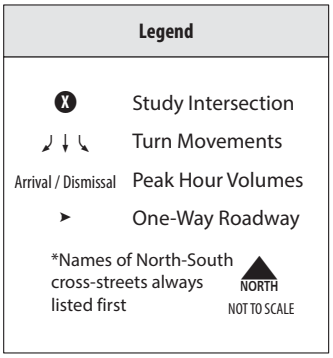
Figure 5-6
Intersection Turning Movements - Near-Term Year 2020
Plus Design Event Conditions (Intersections 1-19)





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Transportation Impact Analysis

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Figure 5-6
Intersection Turning Movements - Near-Term Year 2020 Plus Design Event Conditions (Intersections 20-24)

Roadway Segment Analysis

Near-Term Year 2020 Plus Design Event Conditions LOS analysis results for key study roadway segments are presented in **Table 5.7**. Table 5-7 includes a comparison between Near-Term Year 2020 Plus Design Event and Near-Term Year 2020 Plus Current Event Conditions (impacts of expanded events), and Near-Term Year 2020 Plus Design Event and Near-Term Year 2020 Non-Event Conditions (impacts of new events).

As shown in Table 5.5, all study roadway segments are projected to operate at LOS E or better under Near-Term Year 2020 Plus Design Event Conditions.

Intersection Analysis

Intersection LOS and average vehicle delay results for key study intersections under Near-Term Year 2020 Plus Design Event Conditions are presented in **Table 5.8** for the Event Arrival and Event Dismissal peak periods. A comparison is shown between Near-Term Year 2020 Plus Design Event and Near-Term Year 2020 Plus Current Event Conditions (impacts of expanded events), and Near-Term Year 2020 Plus Design Event and Near-Term Year 2020 Non-Event Conditions (impacts of new events). All intersections are currently signalized. During the Event Dismissal, the signals at intersections #12 Convention Center Court / Harbor Drive and #18 Park Boulevard / Harbor Drive are turned off and the Harbor police department provides traffic control at the intersections. LOS calculation worksheets are provided in **Appendix M**.

As shown, all study area intersections operate at LOS E or better under Near-Term Year 2020 Plus Design Event Conditions, with the exception of the following:

12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[11]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[11]

Freeway Mainline Analysis

Table 5.9 displays freeway segment analysis LOS results under Near-Term Year 2020 Plus Design Event Conditions.

As shown, all study freeway segments operate at an acceptable LOS D or better under Near-Term Year 2020 Plus Design Event Conditions.

[11] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 5.7 Near-Term Year 2020 Plus Design Event Conditions Segment LOS

Roadway	Segment	Cross-Section	Threshold (LOS E)	Near-Term Year 2020 Plus Design Event			Near-Term Year 2020 Plus Current Event					Near-Term Year 2020 Non-Event				
				ADT	V/C	LOS	ADT	V/C	LOS	Δ	Sig?	ADT	V/C	LOS	Δ	Sig?
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,204	0.910	E	18,048	0.902	E	0.008	No	18,000	0.900	E	0.010	No
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	23,640	0.473	B	23,378	0.468	B	0.005	No	23,300	0.466	B	0.007	No
	Market Street to Front Street	5-lane w/ raised median	45,000	25,240	0.561	C	24,978	0.555	C	0.006	No	24,900	0.553	C	0.008	No
	First Ave to Convention Center Court	4-lane w/ raised median	40,000	21,052	0.526	C	20,008	0.500	B	0.026	No	19,700	0.493	B	0.034	No
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	23,734	0.593	C	21,776	0.544	C	0.049	No	21,300	0.533	C	0.061	No
	South of Park Boulevard	4-lane w/ raised median	40,000	17,936	0.448	B	17,830	0.446	B	0.003	No	17,800	0.445	B	0.003	No
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,436	0.189	A	9,330	0.187	A	0.002	No	9,300	0.186	A	0.003	No

Source: Chen Ryan Associates, Inc. (2016)

Note: V/C = Volume to Capacity Ratio

Table 5.8 Near-Term Year 2020 Plus Design Event Conditions Peak Hour Intersection LOS

#	Intersection	Near-Term Year 2020 Plus Design Event				Near-Term Year 2020 Plus Current Event						Near-Term Year 2020 Non-Event					
		Arrival		Dismissal		Arrival		Dismissal				Arrival		Dismissal			
		Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrival / Dis	Sig?	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrival / Dis	Sig?
1	Pacific Highway / Harbor Drive	44.0	D	16.9	B	43.4	D	16.9	B	0.6 / 0.0	No	43.0	D	16.9	B	1.0 / 0.0	No
2	Harbor Drive / Kettner Blvd	27.4	C	16.7	B	26.9	C	16.7	B	0.5 / 0.0	No	26.6	C	16.7	B	0.8 / 0.0	No
3	Market Street / Harbor Drive	18.4	B	16.2	B	18.4	B	16.0	B	0.0 / 0.2	No	18.4	B	16.0	B	0.0 / 0.2	No
4	Front Street / Beech Street	14.3	B	14.0	B	12.7	B	14.0	B	1.6 / 0.0	No	12.5	B	14.0	B	1.8 / 0.0	No
5	Front Street / A Street	12.1	B	12.6	B	12.1	B	12.6	B	0.0 / 0.0	No	12.1	B	12.6	B	0.0 / 0.0	No
6	Front Street / Broadway	16.2	B	24.2	C	16.2	B	24.2	C	0.0 / 0.0	No	16.2	B	24.2	C	0.0 / 0.0	No
7	Front Street / Harbor Drive	14.6	B	7.0	A	9.4	A	6.4	A	5.2 / 0.6	No	8.5	A	6.4	A	6.1 / 0.6	No
8	First Avenue / Beech Street	15.4	B	153.9	**F**	15.4	B	21.6	C	0.0 / 132.3	**Yes**	15.4	B	16.8	B	0.0 / 137.1	**Yes**
9	First Avenue / A Street	17.5	B	13.0	B	17.5	B	11.3	B	0.0 / 1.7	No	17.5	B	11.3	B	0.0 / 1.7	No
10	First Avenue / Broadway	35.5	D	20.8	C	33.8	C	16.8	B	1.7 / 4.0	No	33.1	C	15.9	B	2.4 / 4.9	No
11	First Avenue / Harbor Drive	14.9	B	41.0	D	14.2	B	11.8	B	0.7 / 29.2	No	14.2	B	11.8	B	0.7 / 29.2	No
12	Convention Ctr Ct / Harbor Dr	110.4	**F**	254.1[1]	**F**[1]	5.8	A	7.6[1]	A[1]	104.6 / 246.5[1]	**Yes**	4.7	A	4.4[1]	A[1]	105.7 / 249.7[1]	**Yes**
13	Fifth Avenue / Beech Street	14.5	B	13.2	B	14.5	B	13.1	B	0.0 / 0.1	No	14.5	B	13.1	B	0.0 / 0.1	No
14	Fifth Avenue / Broadway	14.7	B	140.3	**F**	11.4	B	14.0	B	3.3 / 126.3	**Yes**	10.7	B	12.4	B	4.0 / 127.9	**Yes**
15	Fifth Avenue / F Street	17.0	B	18.9	B	15.5	B	15.7	B	1.5 / 3.2	No	15.1	B	15.7	B	1.9 / 3.2	No
16	Fifth Avenue / G Street	15.0	B	220.1	**F**	14.7	B	21.7	C	0.3 / 198.4	**Yes**	14.6	B	18.9	B	0.4 / 201.2	**Yes**
17	Fifth Avenue / Harbor Drive	192.2	**F**	1049.4	**F**	24.5	C	80.5	**F**	167.7 / 968.9	**Yes**	12.4	B	18.0	B	179.8 / 1031.4	**Yes**
18	Park Boulevard / Harbor Drive	58.9	E	240.1[1]	**F**[1]	14.8	B	18.3[1]	B[1]	44.1 / 221.8[1]	**Yes**	14.2	B	11.4[1]	B[1]	44.7 / 228.7[1]	**Yes**
19	Tenth Avenue / A Street	44.8	D	17.9	B	21.7	C	17.3	B	23.1 / 0.6	No	19.8	B	17.2	B	25.0 / 0.7	No
20	Tenth Avenue / F Street	22.3	B	20.5	C	22.3	C	20.5	C	0.0 / 0.0	No	22.3	C	20.5	C	0.0 / 0.0	No
21	Tenth Avenue / G Street	19.1	B	14.4	B	18.9	B	13.9	B	0.2 / 0.5	No	18.8	B	13.8	B	0.3 / 0.6	No
22	Eleventh Avenue / A Street	14.0	B	16.5	B	13.9	B	11.8	B	0.1 / 4.7	No	13.9	B	10.6	B	0.1 / 5.9	No
23	Eleventh Avenue / F Street	21.0	C	8.9	A	20.6	C	8.9	A	0.4 / 0.0	No	20.6	C	8.9	A	0.4 / 0.0	No
24	Eleventh Avenue / G Street	13.4	B	13.4	B	13.4	B	13.4	B	0.0 / 0.0	No	13.4	B	13.4	B	0.0 / 0.0	No

Source: Chen Ryan Associates, Inc. (2016)

Note: **Bold** letter indicates unacceptable LOS.

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 5.9 Near-Term Year 2020 Plus Design Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Near-Term Plus Design Event		Near-Term Plus Current Event				Near-Term Non-Event			
					V/C	LOS	V/C	LOS	Δ V/C	Sig?	V/C	LOS	Δ V/C	Sig?
I-5	Grape Street to First Avenue	173,400	NB	3,300	0.35	B	0.35	B	0.00	No	0.35	B	0.00	No
			SB	7,300	0.78	D	0.77	D	0.01	No	0.77	D	0.01	No
	First Avenue to SR-163	233,600	NB	3,700	0.39	B	0.39	B	0.00	No	0.39	B	0.00	No
			SB	10,300	0.88	D	0.88	D	0.00	No	0.88	D	0.00	No
	SR-163 to B Street	238,600	NB	6,000	0.43	B	0.43	B	0.00	No	0.43	B	0.00	No
			SB	7,900	0.56	C	0.56	C	0.00	No	0.56	C	0.00	No
	B Street to SR-94	177,000	NB	3,100	0.33	B	0.33	B	0.00	No	0.33	B	0.00	No
			SB	6,800	0.72	D	0.72	D	0.00	No	0.72	D	0.00	No
	SR-94 to Imperial Avenue	192,900	NB	4,100	0.35	B	0.35	B	0.00	No	0.35	B	0.00	No
			SB	6,500	0.55	C	0.55	C	0.00	No	0.55	C	0.00	No
	Imperial Avenue to SR-75	210,700	NB	4,700	0.40	B	0.39	B	0.01	No	0.39	B	0.01	No
			SB	7,000	0.60	C	0.59	C	0.01	No	0.59	C	0.01	No
SR-163	South of Robinson Avenue	130,000	NB	3,900	0.83	D	0.83	D	0.00	No	0.83	D	0.00	No
			SB	3,400	0.72	D	0.70	C	0.02	No	0.70	C	0.02	No
SR-94	West of 25th Street	154,900	EB	5,200	0.55	C	0.54	C	0.01	No	0.54	C	0.01	No
			WB	4,100	0.44	B	0.44	B	0.00	No	0.44	B	0.00	No

Source: SANDAG Series 13 Forecast Year 2020 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

V/C = Volume to capacity ratio

[1] SANDAG Series 13 Forecast Year 2020

5.4 Impact Significance and Mitigation – Non-Event to Design Event

Based on the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Near-Term Year 2020 Non-Event Conditions would cause significant impacts to the following intersections:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[12]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[12]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection. Similarly, external public event organizers should be responsible for providing Traffic Management Plans and traffic control officers as needed, consistent with event size and time.

5.5 Impact Significance and Mitigation – Current Event to Design Event

Based on the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Near-Term Year 2020 Current Event Conditions would cause significant impacts to the following intersections:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[12]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[12]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection. Similarly, external public event organizers should be responsible for providing Traffic Management Plans and traffic control officers as needed, consistent with event size and time.

[12] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

6.0 Future Year 2035 Cumulative Traffic Conditions

This chapter provides analysis of Future Year 2035 traffic conditions. The following scenarios are analyzed in this chapter:

- Future Year 2035 Non-Event Conditions
- Future Year 2035 Plus Current Event Conditions
- Future Year 2035 Plus Design Event Conditions

6.1 Future Year 2035 Non-Event Conditions

6.1.1 Intersection and Roadway Geometrics and Volumes

Figure 6-1 displays Future Year 2035 roadway geometrics for Harbor Drive and Pacific Highway. Figure 6-2 displays the Future Year 2035 intersection geometrics for the key study area intersections. Future Year 2035 roadway and intersection geometrics are assumed to be identical to those under Existing Conditions, as previously displayed in in Figure 4-1 and 4-2, with the exception of the following modifications identified in the *Downtown San Diego Mobility Plan Technical Report* (April 2016):

- Connect the two segments of Park Boulevard that currently terminate at Harbor Drive and Tony Gwynn Drive, enabling northbound-southbound movements through the Park Boulevard / Harbor Drive intersection.
- Reduce Pacific Highway from a 6-lane roadway with raised median to a 4-lane roadway with a raised median.
- Add an auxiliary lane to SR-94 in each direction.

Future Year 2035 Non-Event intersection volumes were developed using the modeling techniques employed for the *Downtown San Diego Mobility Plan Technical Report* (April 2016). The model was calibrated to the arrival and departure peaks. Figure 6-3 displays Future Year 2035 Non-Event Condition average daily traffic volumes. Future Year 2035 Non-Event Condition peak hour intersection turning movements are presented in Figure 6-4. Relevant excerpts from the *Downtown San Diego Mobility Plan Technical Report* (April 2016) are provided in Appendix N.

6.1.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

<u>Roadway Segment Analysis</u>
Future Year 2035 Non-Event Conditions LOS analysis results for key study roadway segments are presented in Table 6.1.

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Figure 6-1
Future Year 2035 Roadway Geometrics

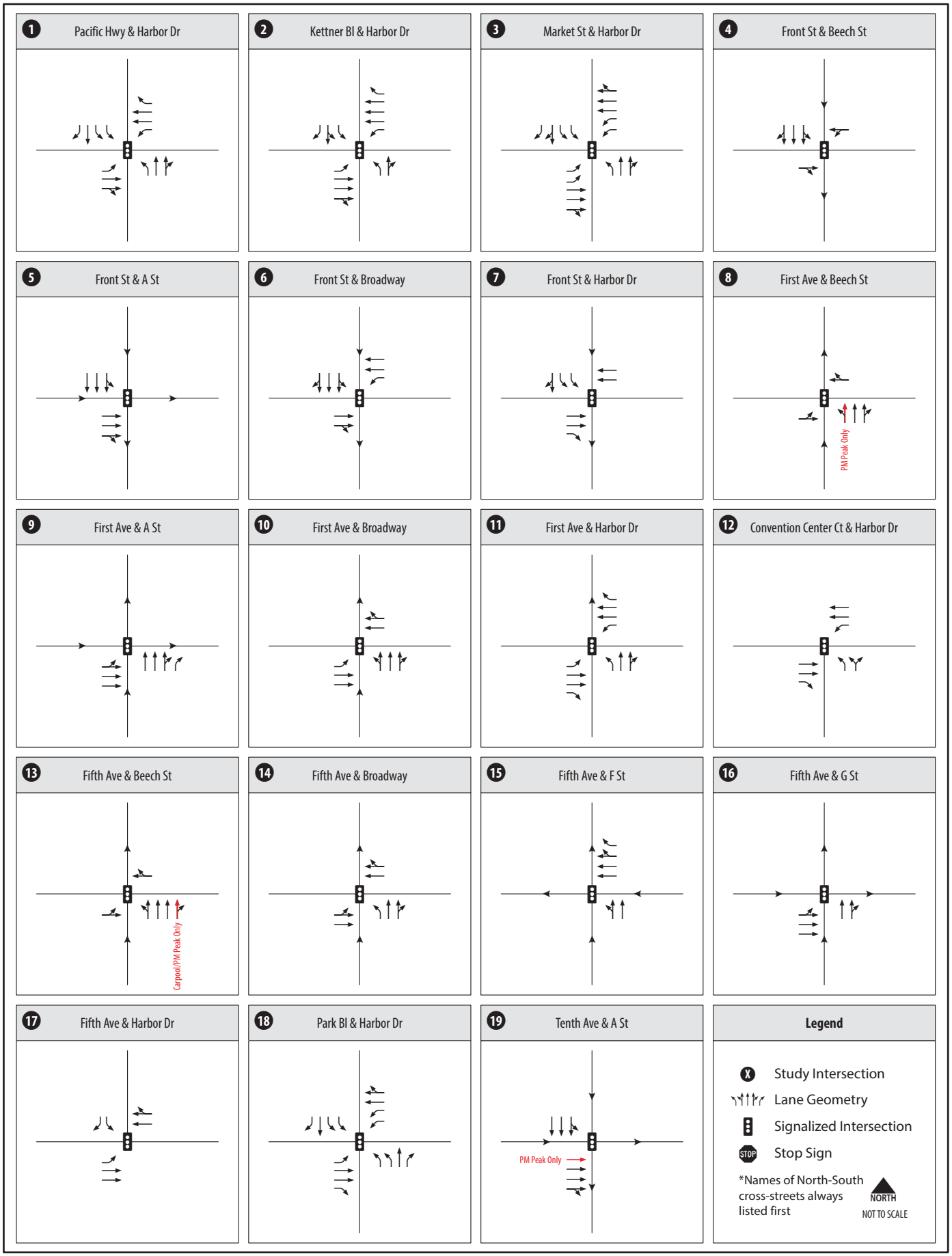

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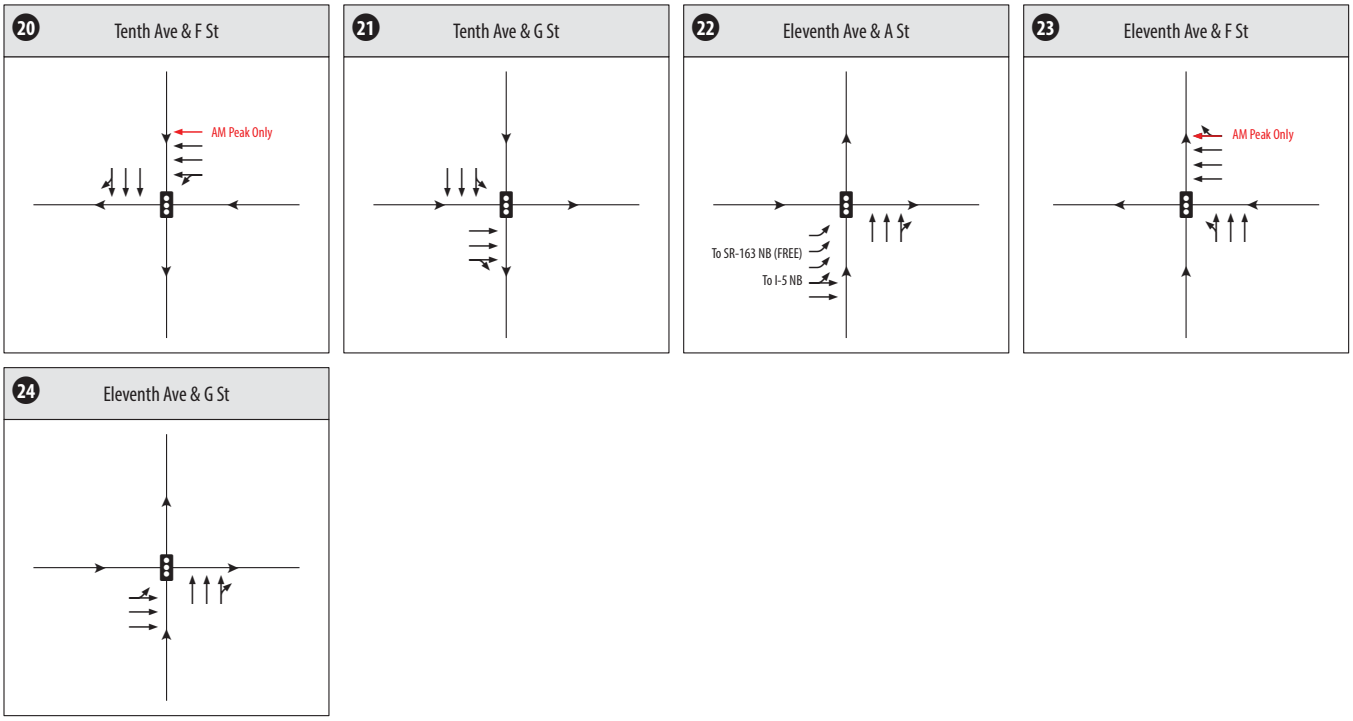
Figure 6-2
Future Year 2035 Intersection Geometrics (Intersections 1-19)



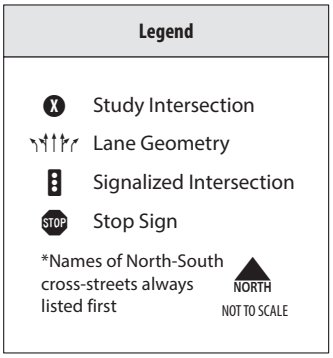


Figure 6-2
Future Year 2035 Intersection Geometrics (Intersections 20-24)

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Figure 6-3
Average Daily Traffic Volumes -
Future Year 2035 Non-Event Conditions

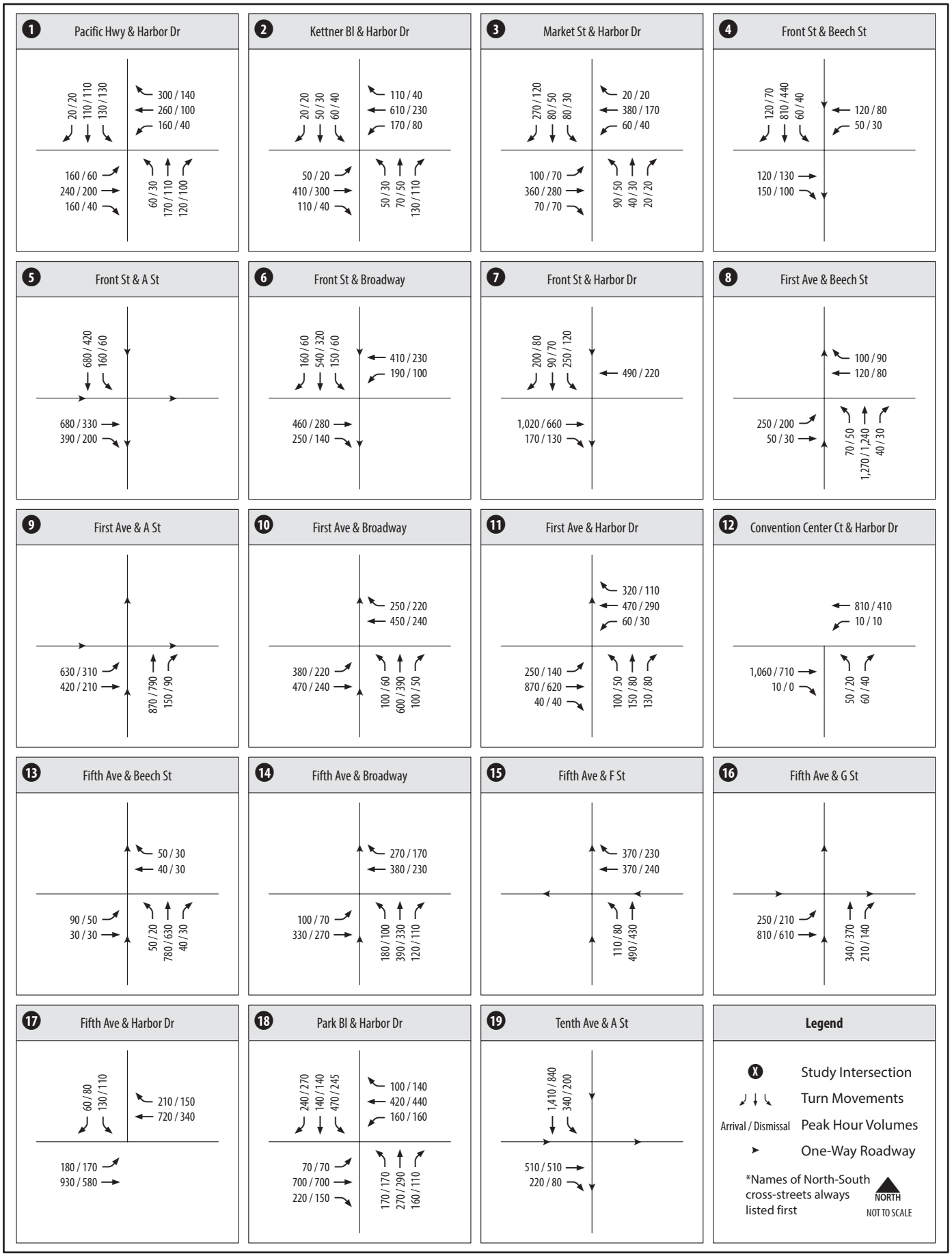

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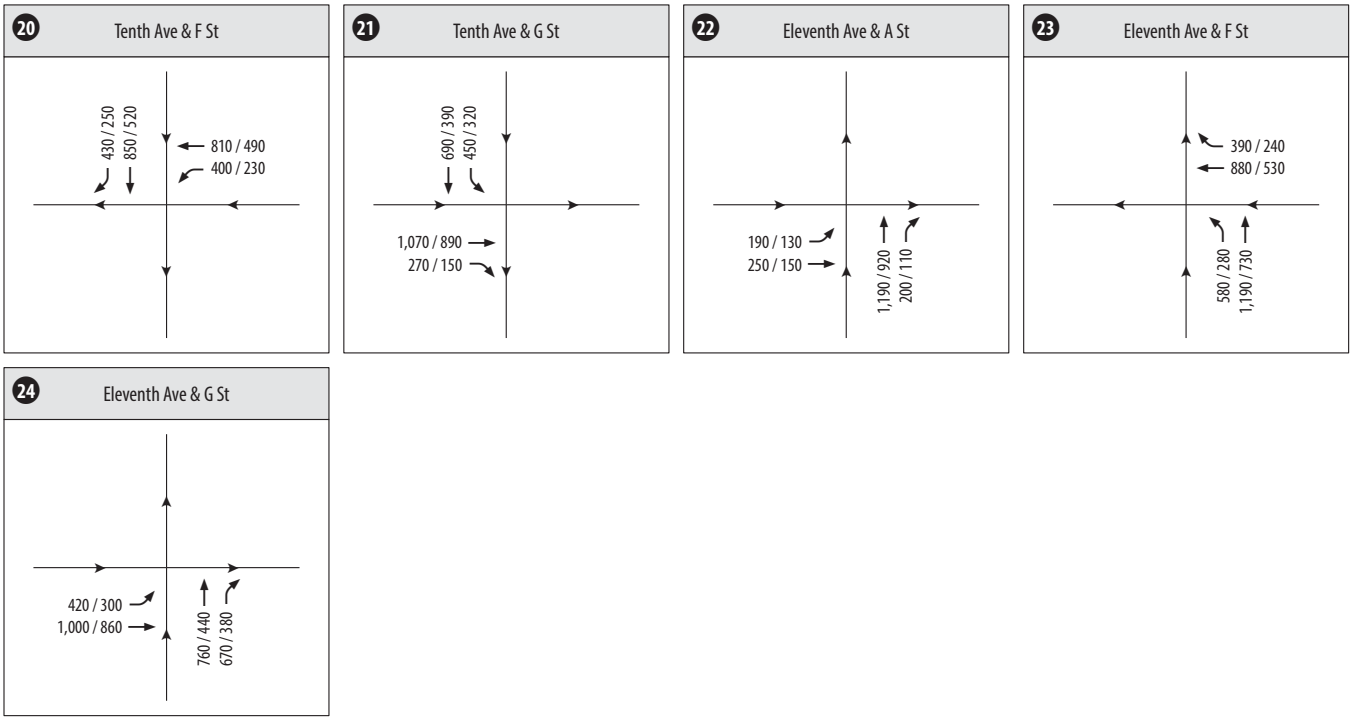
Figure 6-4
Intersection Turning Movements -
Future Year 2035 Non-Event Conditions (Intersections 1-19)



Legend

X	Study Intersection
	Turn Movements
Arrival / Dismissal	Peak Hour Volumes
	One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

Figure 6-4
Intersection Turning Movements - Future Year 2035 Non-Event Conditions (Intersections 20-24)

Table 6.1 Future Year 2035 Non-Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,000	0.900	E
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	18,500	0.370	A
	Market Street to Front Street	5-lane w/ raised median	45,000	29,200	0.649	C
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	22,300	0.558	C
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	24,100	0.603	C
	South of Park Boulevard	4-lane w/ raised median	40,000	20,200	0.505	B
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,700	0.194	A

Source: Chen Ryan Associates, Inc. (2016)

Note: V/C = Volume to Capacity Ratio

As shown, all study roadway segments are projected to operate at an acceptable LOS E or better under Future Year 2035 Non-Event Conditions.

Intersection Analysis

Future Year 2035 Non-Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in Table 6.2 for the Event Arrival and Event Dismissal peak periods. All intersections are currently signalized. LOS calculation worksheets are provided in Appendix O.

Table 6.2 Future Year 2035 Non-Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	43.0	D	16.9	B
2	Kettner Boulevard / Harbor Drive	26.6	C	16.7	B
3	Market Street / Harbor Drive	18.4	B	16.0	B
4	Front Street / Beech Street	12.5	B	14.0	B
5	Front Street / A Street	12.1	B	12.6	B
6	Front Street / Broadway	16.2	B	24.2	C
7	Front Street / Harbor Drive	8.5	A	6.4	A
8	First Avenue / Beech Street	15.4	B	16.8	B
9	First Avenue / A Street	17.5	B	11.3	B
10	First Avenue / Broadway	33.1	C	15.9	B
11	First Avenue / Harbor Drive	14.2	B	11.8	B
12	Convention Center Court / Harbor Drive	4.7	A	4.4	A
13	Fifth Avenue / Beech Street	14.5	B	13.1	B
14	Fifth Avenue / Broadway	10.7	B	12.4	B
15	Fifth Avenue / F Street	15.1	B	15.7	B

Table 6.2 Future Year 2035 Non-Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
16	Fifth Avenue / G Street	14.6	B	18.9	B
17	Fifth Avenue / Harbor Drive	12.4	B	18.0	B
18	Park Boulevard / Harbor Drive	14.2	B	11.4	B
19	Tenth Avenue / A Street	19.8	B	17.2	B
20	Tenth Avenue / F Street	22.3	C	20.5	C
21	Tenth Avenue / G Street	18.8	B	13.8	B
22	Eleventh Avenue / A Street	13.9	B	10.6	B
23	Eleventh Avenue / F Street	20.6	C	8.9	A
24	Eleventh Avenue / G Street	13.4	B	13.4	B

Source: Chen Ryan Associates, Inc. (2016)

As shown, all study area intersections are projected to operate at LOS D or better under Future Year 2035 Non-Event Conditions.

Freeway Mainline Analysis

Table 6.3 displays freeway segment analysis LOS results under Future Year 2035 Non-Event Conditions

Table 6.3 Future Year 2035 Non-Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Lanes[2]	Capacity[3]	D[4]	K[5]	HVF[6]	Peak Hour Volume	V/C[7]	LOS
I-5	Grape Street to First Avenue	181,800	NB	4M	9,400	41.0%	4.5%	2.2%	3,500	0.37	B
			SB	4M	9,400	59.0%	6.8%	3.9%	7,700	0.82	D
	First Avenue to SR-163	252,500	NB	4M	9,400	35.8%	4.2%	3.7%	4,000	0.43	B
			SB	5M	11,750	64.2%	6.5%	3.1%	11,200	0.95	**E**
	SR-163 to B Street	252,700	NB	6M	14,100	50.7%	4.7%	3.1%	6,400	0.45	B
			SB	6M	14,100	49.3%	6.3%	1.3%	8,300	0.59	C
	B Street to SR-94	193,300	NB	4M	9,400	38.5%	4.3%	2.2%	3,400	0.36	B
			SB	4M	9,400	61.5%	5.9%	2.9%	7,400	0.79	D
	SR-94 to Imperial Avenue	226,600	NB	5M	11,750	44.7%	4.5%	1.3%	4,800	0.41	B
			SB	5M	11,750	55.3%	5.8%	1.6%	7,600	0.65	C
	Imperial Avenue to SR-75	220,500	NB	5M	11,750	47.8%	4.4%	2.9%	4,900	0.42	B
			SB	5M	11,750	52.2%	6.0%	3.9%	7,300	0.62	C
SR-163	South of Robinson Avenue	128,600	NB	2M	4,700	52.5%	5.4%	13.0%	3,900	0.83	D
			SB	2M	4,700	47.5%	5.2%	1.3%	3,300	0.70	C
SR-94	West of 25th Street	158,500	EB	4M	9,400	53.1%	6.0%	0.8%	5,300	0.56	C
			WB	4M	9,400	46.9%	5.4%	1.8%	4,200	0.45	B

Source: SANDAG Series 13 Forecast Year 2035 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

Bold letter indicates unacceptable LOS.

[1] SANDAG Series 13 Forecast Year 2020.

[2] M = Mainline
[3] Capacity is calculated as 2,350 vehicles per main lane during the peak hour.
[4] D = Directional Split
[5] K = Peak hour %
[6] HVF = Heavy vehicle factor
[7] V/C = Volume to capacity ratio

As shown, all study freeway segments operate at an acceptable LOS D or better under Future Year 2035 Non-Event Conditions, with the exception of the following:

- Southbound I-5, from First Avenue to SR-163 (LOS E)

6.2 Future Year 2035 Plus Current Event Conditions

This scenario provides an analysis of the Future Year 2035 traffic conditions on a current event day.

6.2.1 Roadway and Intersection Volumes

Future Year 2035 Plus Current Event Condition ADT volumes are shown for study segments in Figure 6-5. Intersection turning movements under Future Year 2035 Plus Current Event Conditions are displayed in Figure 6-6 for the Event Arrival and Event Dismissal times.

6.2.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

Roadway Segment Analysis

Future Year 2035 Plus Current Event Conditions LOS analysis results for key study roadway segments are presented in Table 6.4.

Table 6.4 Future Year 2035 Plus Current Event Conditions Segment LOS

Roadway	Segment	Cross-section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,048	0.902	E
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	18,578	0.372	A
	Market Street to Front Street	5-lane w/ raised median	45,000	29,278	0.651	C
	First Avenue to Convention Center Court	4-lane w/ raised median	40,000	22,608	0.565	C
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	24,576	0.614	C
	South of Park Boulevard	4-lane w/ raised median	40,000	20,230	0.506	B
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,730	0.195	A

Source: Chen Ryan Associates, Inc. (2016)

Notes: V/C = Volume to Capacity Ratio

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Figure 6-5
Average Daily Traffic Volumes -
Future Year 2035 Current Event Conditions

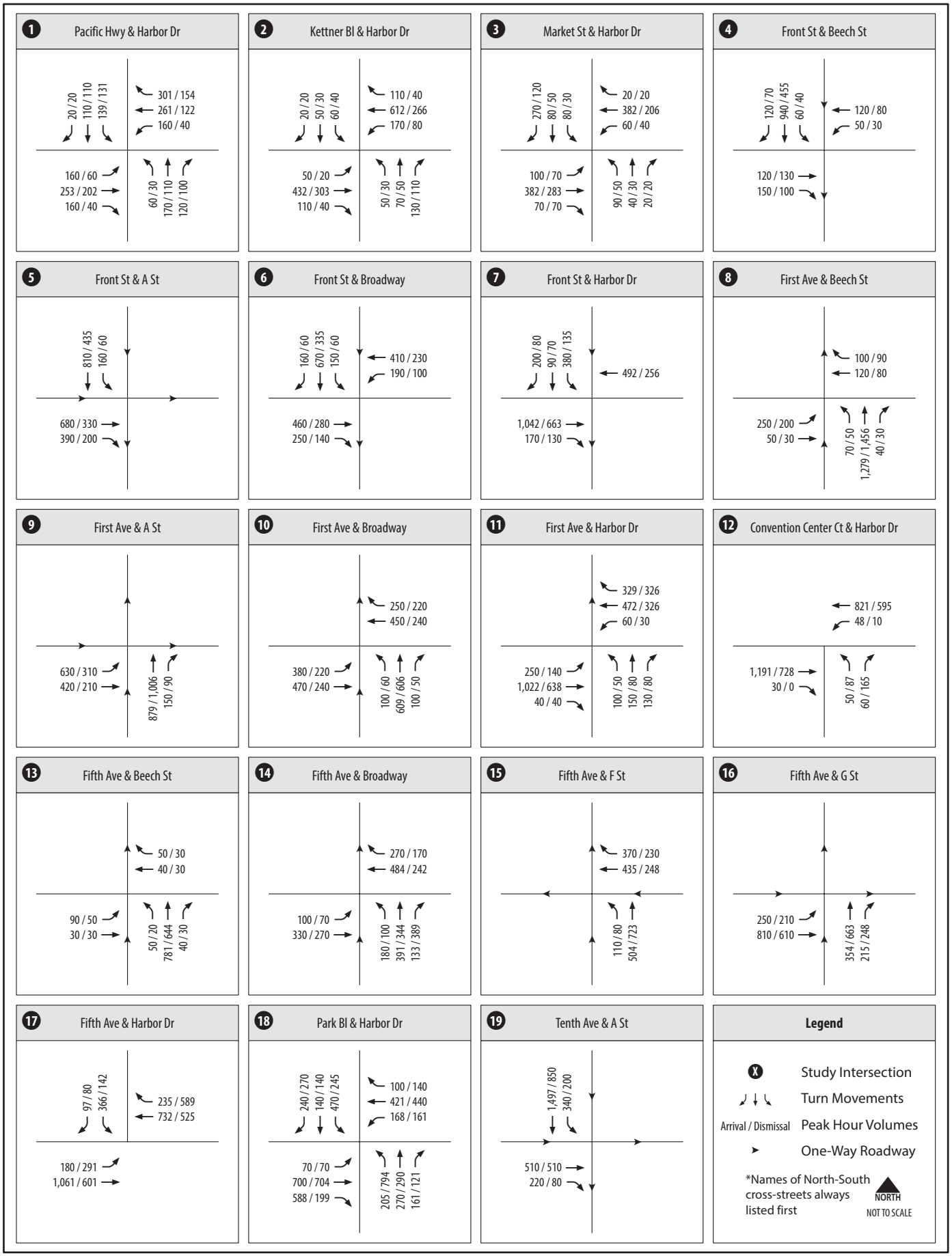

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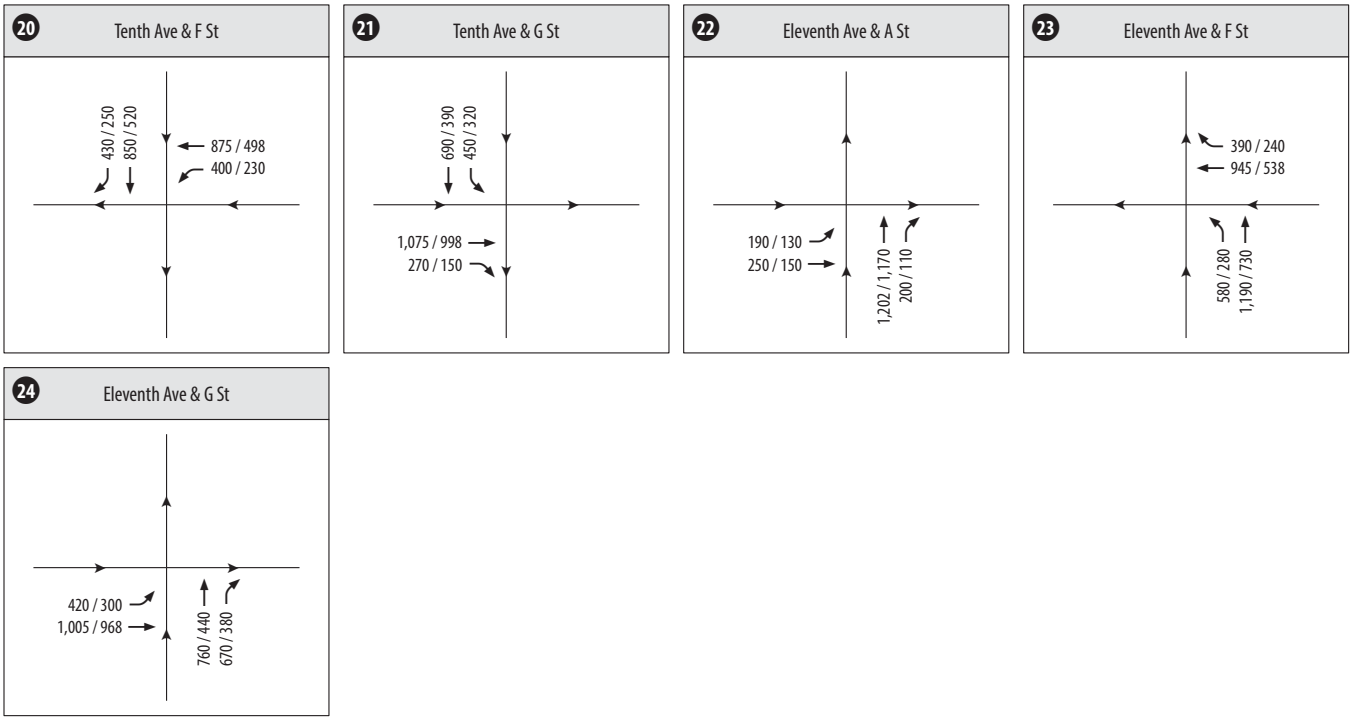
Figure 6-6
Intersection Turning Movements -
Future Year 2035 Plus Current Event Conditions (Intersections 1-19)



Legend

X	Study Intersection
	Turn Movements
Arrival / Dismissal	Peak Hour Volumes
➤	One-Way Roadway

*Names of North-South cross-streets always listed first

NORTH
NOT TO SCALE

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Figure 6-6
Intersection Turning Movements -
Future Year 2035 Plus Current Event Conditions (Intersections 20-24)

As shown, all study roadway segments are projected to operate at an acceptable LOS under Future Year 2035 Plus Current Event Conditions.

Intersection Analysis

Future Year 2035 Plus Current Event Conditions intersection LOS and average vehicle delay results for key study intersections are presented in Table 6.5 for the Event Arrival and Event Dismissal peak periods. All intersections are currently signalized. LOS calculation worksheets are provided in Appendix P.

Table 6.5 Future Year 2035 Plus Current Event Conditions Peak Hour Intersection LOS

#	Intersection	Event Arrival		Event Dismissal	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Pacific Highway / Harbor Drive	43.4	D	16.9	B
2	Kettner Boulevard / Harbor Drive	26.9	C	16.7	B
3	Market Street / Harbor Drive	18.4	B	16	B
4	Front Street / Beech Street	12.7	B	14	B
5	Front Street / A Street	12.1	B	12.6	B
6	Front Street / Broadway	16.2	B	24.2	C
7	Front Street / Harbor Drive	9.4	A	6.4	A
8	First Avenue / Beech Street	15.4	B	21.6	C
9	First Avenue / A Street	17.5	B	11.3	B
10	First Avenue / Broadway	33.8	C	16.8	B
11	First Avenue / Harbor Drive	14.2	B	11.8	B
12	Convention Center Court / Harbor Drive	5.8	A	7.6[1]	A[1]
13	Fifth Avenue / Beech Street	14.5	B	13.1	B
14	Fifth Avenue / Broadway	11.4	B	14	B
15	Fifth Avenue / F Street	15.5	B	15.7	B
16	Fifth Avenue/ G Street	14.7	B	21.7	C
17	Fifth Avenue / Harbor Drive	24.5	C	80.5	**F**
18	Park Boulevard / Harbor Drive	14.8	B	18.3[1]	B[1]
19	Tenth Avenue / A Street	21.7	C	17.3	B
20	Tenth Avenue / F Street	22.3	C	20.5	C
21	Tenth Avenue / G Street	18.9	B	13.9	B
22	Eleventh Avenue / A Street	13.9	B	11.8	B
23	Eleventh Avenue / F Street	20.6	C	8.9	A
24	Eleventh Avenue / G Street	13.4	B	13.4	B

Source: Chen Ryan Associates, Inc. (2016)

Note: **Bold** letter indicated unacceptable LOS.

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

As shown, all study area intersections are projected to operate at LOS D or better under Future Year 2035 Plus Current Event Conditions, with the exception of the following:

17. Fifth Avenue / Harbor Drive – LOS F (Event Dismissal)

Freeway Mainline Analysis

Table 6.6 displays freeway segment analysis LOS results under Future Year 2035 Plus Current Event Conditions.

Table 6.6 Future Year 2035 Plus Current Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Future Year Plus Current Event		Future Year 2035 Non-Event		Δ V/C	Sig?
					V/C	LOS	V/C	LOS		
I-5	Grape Street to First Avenue	182,000	NB	3,500	0.37	B	0.37	B	0.00	No
			SB	7,700	0.82	D	0.82	D	0.00	No
	First Avenue to SR-163	252,500	NB	4,000	0.43	B	0.43	B	0.00	No
			SB	11,200	0.95	**E**	0.95	**E**	0.00	No
	SR-163 to B Street	252,700	NB	6,400	0.45	B	0.45	B	0.00	No
			SB	8,300	0.59	C	0.59	C	0.00	No
	B Street to SR-94	193,300	NB	3,400	0.36	B	0.36	B	0.00	No
			SB	7,400	0.79	D	0.79	D	0.00	No
	SR-94 to Imperial Avenue	226,600	NB	4,800	0.41	B	0.41	B	0.00	No
			SB	7,600	0.65	C	0.65	C	0.00	No
	Imperial Avenue to SR-75	221,000	NB	4,900	0.42	B	0.42	B	0.00	No
			SB	7,300	0.62	C	0.62	C	0.00	No
SR-163	South of Robinson Avenue	128,900	NB	3,900	0.83	D	0.83	D	0.00	No
			SB	3,300	0.70	C	0.70	C	0.00	No
SR-94	West of 25th Street	158,700	EB	5,300	0.56	C	0.56	C	0.00	No
			WB	4,200	0.45	B	0.45	B	0.00	No

Source: SANDAG Series 13 Forecast Year 2035 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

Bold letter indicates unacceptable LOS.

V/C = Volume to capacity ratio

[1] SANDAG Series 13 Forecast Year 2035.

As shown, all study freeway segments operate at an acceptable LOS D or better under Future Year 2035 Plus Current Event Conditions, with the exception of the following:

- Southbound I-5, from First Avenue to SR-163 (LOS E)

6.3 Future Year 2035 Plus Design Event Conditions

This scenario provides an analysis of the Future Year 2035 traffic conditions with the addition of traffic resulting from the Proposed Project.

6.3.1 Intersection and Roadway Volumes

Future Year 2035 Plus Design Event Conditions were developed by adding the Design Event Project Trip Assignment (displayed in Figure 3-3a) to the Future Year Non-Event Conditions traffic volumes (displayed in Figure 6-3). Future Year 2035 Plus Design Event Condition ADT volumes are shown for study segments in **Figure 6-7**. Future Year 2035 Plus Design Event Condition intersection turning movements under are displayed in **Figure 6-8** for the Event Arrival and Dismissal times.

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Figure 6-7
Average Daily Traffic Volumes -
Future Year 2035 Design Event Conditions

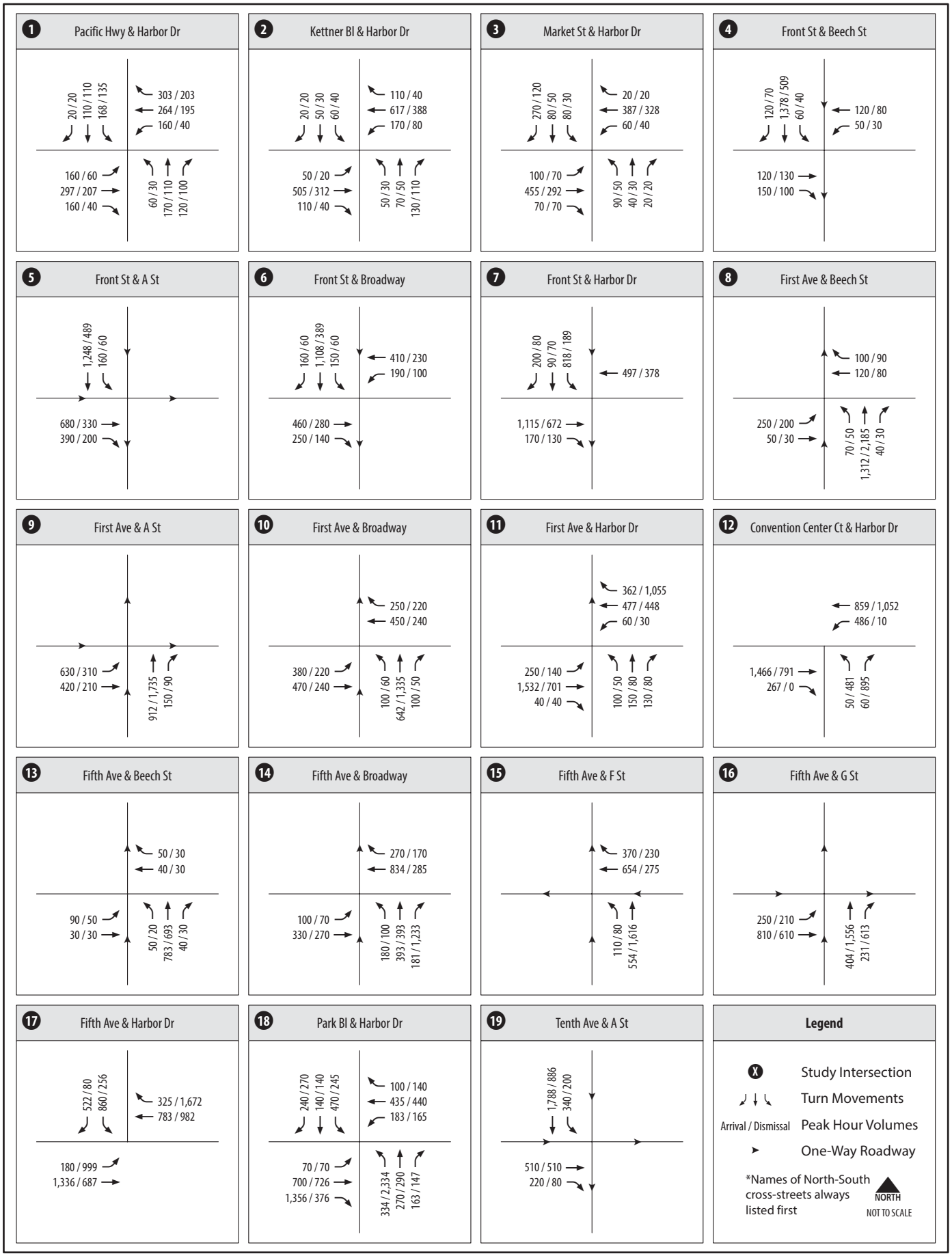

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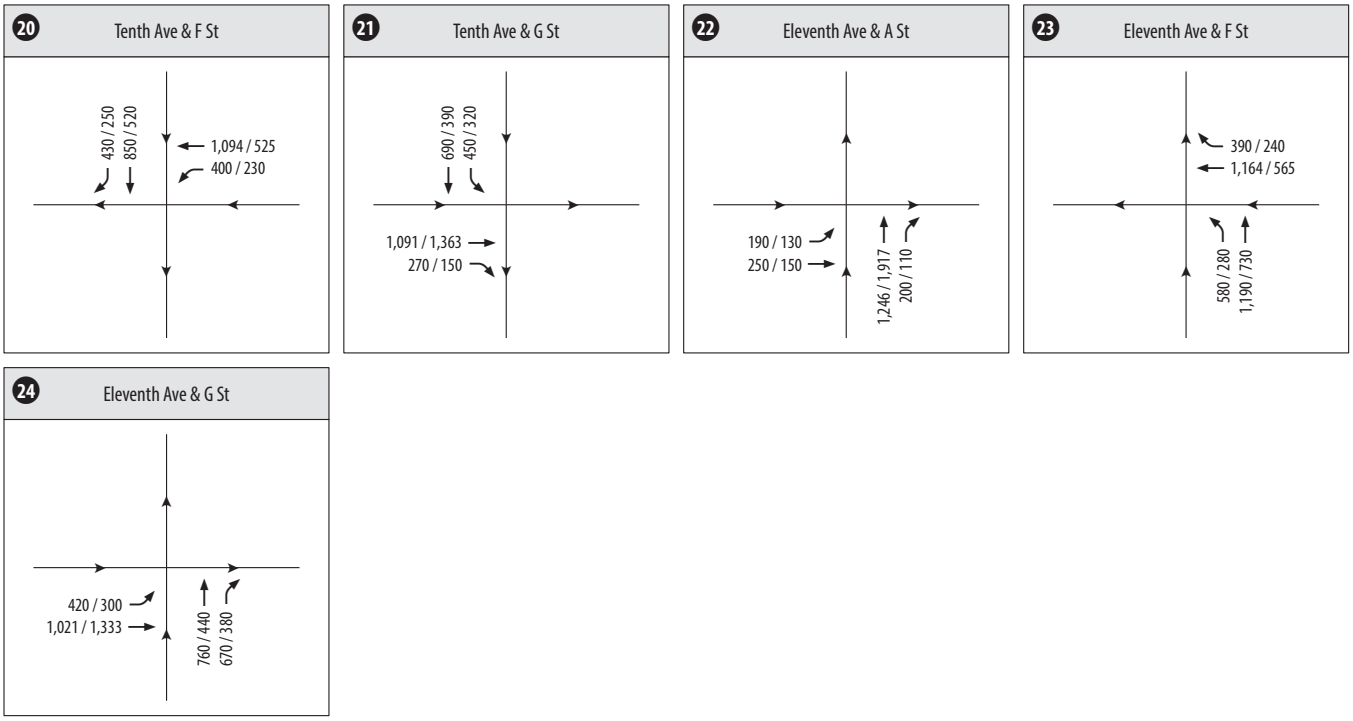
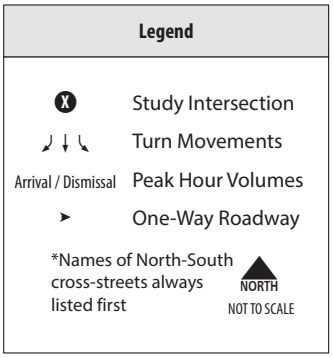
Figure 6-8
Intersection Turning Movements -
Future Year 2035 Plus Design Event Conditions (Intersections 1-19)





Bayside Performance Park Enhancement Project
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Figure 6-8
Intersection Turning Movements -
Future Year 2035 Plus Design Event Conditions (Intersections 20-24)

6.3.2 Analysis Results

LOS analyses were conducted using the methodologies described in Chapter 2. Roadway segment, intersection LOS and freeway analyses are discussed separately below.

Roadway Segment Analysis

Future Year 2035 Plus Design Event Conditions LOS analysis results for key study roadway segments are presented in Table 6.7. Table 6.7 includes a comparison between Future Year 2035 Plus Design Event and Future Year 2035 Plus Current Event Conditions (impacts of expanded events), and Future Year 2035 Plus Design Event and Future Year 2035 Non-Event Conditions (Impacts of new events).

As shown, all study roadway segments are projected to operate at an acceptable LOS E under Future Year 2035 Plus Design Event Conditions.

Intersection Analysis

Intersection LOS and average vehicle delay results for key study intersections under Future Year 2035 Plus Design Event Conditions are presented in Table 6.8 for the Event Arrival and Event Dismissal peak periods. A comparison is shown between Future Year 2035 Plus Design Event and Future Year 2035 Plus Current Event Conditions (impacts of expanded events), and Future Year 2035 Plus Design Event and Future Year 2035 Non-Event Conditions (Impacts of new events). All intersections are currently signalized. During the Event Dismissal, the signals at intersections #12 Convention Center Court / Harbor Drive and #18 Park Boulevard / Harbor Drive are turned off and the Harbor police department provides traffic control at the intersections. LOS calculation worksheets are provided in Appendix Q.

As shown, all study area intersections are projected to operate at LOS E or better under Long-Term Plus Design Event Conditions, with the exception of the following:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[13]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[13]

Freeway Mainline Analysis

Table 6.9 displays freeway segment analysis LOS results under Future Year 2035 Plus Design Event Conditions.

As shown, all study freeway segments operate at an acceptable LOS under Future Year 2035 Plus Design Event Conditions, with the exception of the following:

- Southbound I-5, from First Avenue to SR-163 (LOS E)

[13] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 6.7 Future Year 2035 Plus Design Event Conditions Segment LOS

Roadway	Segment	Cross-Section	Threshold (LOS E)	Future Year 2035 Plus Design Event			Future Year 2035 Plus Current Event					Future Year 2035 Non-Event				
				ADT	V/C	LOS	ADT	V/C	LOS	Δ	Sig?	ADT	V/C	LOS	Δ	Sig?
Harbor Drive	Broadway to Pacific Highway	2-lane w/ CLTL	20,000	18,202	0.910	E	18,048	0.902	E	0.008	No	18,000	0.900	E	0.010	No
	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	18,838	0.377	A	18,578	0.372	A	0.005	No	18,500	0.370	A	0.007	No
	Market Street to Front Street	5-lane w/ raised median	45,000	29,538	0.656	C	29,278	0.651	C	0.006	No	29,200	0.649	C	0.008	No
	First Ave to Convention Center Court	4-lane w/ raised median	40,000	23,652	0.591	C	22,608	0.565	C	0.026	No	22,300	0.558	C	0.034	No
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	26,536	0.663	C	24,576	0.614	C	0.049	No	24,100	0.603	C	0.061	No
	South of Park Boulevard	4-lane w/ raised median	40,000	20,336	0.508	B	20,230	0.506	B	0.003	No	20,200	0.505	B	0.003	No
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,836	0.246	A	9,730	0.195	A	0.003	No	9,700	0.194	A	0.003	No

Source: Chen Ryan Associates, Inc. (2016)

Notes: V/C = Volume to Capacity Ratio

Table 6.8 Future Year 2035 Plus Design Event Conditions Peak Hour Intersection LOS

		Future Year 2035 Plus Design Event				Future Year 2035 Plus Current Event						Future Year 2035 Non-Event					
		Arrival		Dismissal		Arrival		Dismissal				Arrival		Dismissal			
#	Intersection	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrival / Dis	Sig?	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay Arrival / Dis	Sig?
1	Pacific Highway / Harbor Drive	44.0	D	16.9	B	43.4	D	16.9	B	0.6 / 0.0	No	43.0	D	16.9	B	1.0 / 0.0	No
2	Harbor Drive / Kettner Blvd	27.4	C	16.7	B	26.9	C	16.7	B	0.5 / 0.0	No	26.6	C	16.7	B	0.8 / 0.0	No
3	Market Street / Harbor Drive	18.4	B	16.2	B	18.4	B	16	B	0.0 / 0.2	No	18.4	B	16.0	B	0.0 / 0.2	No
4	Front Street / Beech Street	14.3	B	14.0	B	12.7	B	14	B	1.6 / 0.0	No	12.5	B	14.0	B	1.8 / 0.0	No
5	Front Street / A Street	12.1	B	12.6	B	12.1	B	12.6	B	0.0 / 0.0	No	12.1	B	12.6	B	0.0 / 0.0	No
6	Front Street / Broadway	16.2	B	24.2	C	16.2	B	24.2	C	0.0 / 0.0	No	16.2	B	24.2	C	0.0 / 0.0	No
7	Front Street / Harbor Drive	14.6	B	7.0	A	9.4	A	6.4	A	5.2 / 0.6	No	8.5	A	6.4	A	6.1 / 0.6	No
8	First Avenue / Beech Street	15.4	B	153.9	**F**	15.4	B	21.6	C	0.0 / 132.3	**Yes**	15.4	B	16.8	B	0.0 / 137.1	**Yes**
9	First Avenue / A Street	17.5	B	13.0	B	17.5	B	11.3	B	0.0 / 1.7	No	17.5	B	11.3	B	0.0 / 1.7	No
10	First Avenue / Broadway	35.5	D	20.8	C	33.8	C	16.8	B	1.7 / 4.0	No	33.1	C	15.9	B	2.4 / 4.9	No
11	First Avenue / Harbor Drive	14.9	B	41.0	D	14.2	B	11.8	B	0.7 / 29.2	No	14.2	B	11.8	B	0.7 / 29.2	No
12	Convention Ctr Ct / Harbor Dr	110.4	**F**	254.1[1]	**F**[1]	5.8	A	7.6[1]	A[1]	104.6 / 246.5[1]	**Yes**	4.7	A	4.4[1]	A[1]	105.7 / 249.7[1]	**Yes**
13	Fifth Avenue / Beech Street	14.5	B	13.2	B	14.5	B	13.1	B	0.0 / 0.1	No	14.5	B	13.1	B	0.0 / 0.1	No
14	Fifth Avenue / Broadway	14.7	B	140.3	**F**	11.4	B	14	B	3.3 / 126.3	**Yes**	10.7	B	12.4	B	4.0 / 127.9	**Yes**
15	Fifth Avenue / F Street	17.0	B	18.9	B	15.5	B	15.7	B	1.5 / 3.2	No	15.1	B	15.7	B	1.9 / 3.2	No
16	Fifth Avenue / G Street	15.0	B	220.1	**F**	14.7	B	21.7	C	0.3 / 198.4	**Yes**	14.6	B	18.9	B	0.4 / 201.2	**Yes**
17	Fifth Avenue / Harbor Drive	192.2	**F**	1049.4	**F**	24.5	C	80.5	**F**	167.7 / 968.9	**Yes**	12.4	B	18.0	B	179.8 / 1031.4	**Yes**
18	Park Boulevard / Harbor Drive	58.9	E	240.1[1]	**F**[1]	14.8	B	18.3[1]	B[1]	44.1 / 221.8[1]	**Yes**	14.2	B	11.4[1]	B[1]	44.7 / 228.7[1]	**Yes**
19	Tenth Avenue / A Street	44.8	D	17.9	B	21.7	C	17.3	B	23.1 / 0.6	No	19.8	B	17.2	B	25.0 / 0.7	No
20	Tenth Avenue / F Street	22.3	B	20.5	C	22.3	C	20.5	C	0.0 / 0.0	No	22.3	C	20.5	C	0.0 / 0.0	No
21	Tenth Avenue / G Street	19.1	B	14.4	B	18.9	B	13.9	B	0.2 / 0.5	No	18.8	B	13.8	B	0.3 / 0.6	No
22	Eleventh Avenue / A Street	14.0	B	16.5	B	13.9	B	11.8	B	0.1 / 4.7	No	13.9	B	10.6	B	0.1 / 5.9	No
23	Eleventh Avenue / F Street	21.0	C	8.9	A	20.6	C	8.9	A	0.4 / 0.0	No	20.6	C	8.9	A	0.4 / 0.0	No
24	Eleventh Avenue / G Street	13.4	B	13.4	B	13.4	B	13.4	B	0.0 / 0.0	No	13.4	B	13.4	B	0.0 / 0.0	No

Source: Chen Ryan Associates, Inc. (2016)

Note: **Bold** letter indicated unacceptable LOS.

[1] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

Table 6.9 Future Year 2035 Plus Design Event Conditions Freeway Segment LOS

Freeway	Segment	ADT[1]	Dir.	Peak Hour Volume	Future Year 2035 Plus Design Event		Future Year 2035 Plus Current Event				Future Year 2035 Non-Event			
					V/C	LOS	V/C	LOS	Δ V/C	Sig?	V/C	LOS	Δ V/C	Sig?
I-5	Grape Street to First Avenue	182,800	NB	3,500	0.37	B	0.37	B	0.00	No	0.37	B	0.00	No
			SB	7,700	0.82	D	0.82	D	0.00	No	0.82	D	0.00	No
	First Avenue to SR-163	252,500	NB	4,000	0.43	B	0.43	B	0.00	No	0.43	B	0.00	No
			SB	11,200	0.95	**E**	0.95	**E**	0.00	No	0.95	**E**	0.00	No
	SR-163 to B Street	252,700	NB	6,400	0.45	B	0.45	B	0.00	No	0.46	B	0.00	No
			SB	8,300	0.59	C	0.59	C	0.00	No	0.59	C	0.00	No
	B Street to SR-94	193,300	NB	3,400	0.36	B	0.36	B	0.00	No	0.36	B	0.00	No
			SB	7,400	0.79	D	0.79	D	0.00	No	0.78	D	0.00	No
	SR-94 to Imperial Avenue	226,600	NB	4,800	0.41	B	0.41	B	0.00	No	0.40	B	0.00	No
			SB	7,600	0.65	C	0.65	C	0.00	No	0.65	C	0.00	No
	Imperial Avenue to SR-75	222,900	NB	4,900	0.42	B	0.42	B	0.00	No	0.41	B	0.00	No
			SB	7,400	0.63	C	0.62	C	0.01	No	0.62	C	0.01	No
SR-163	South of Robinson Avenue	130,000	NB	3,900	0.83	D	0.83	D	0.00	No	0.83	D	0.00	No
			SB	3,400	0.72	D	0.70	C	0.02	No	0.72	D	0.02	No
SR-94	West of 25th Street	159,500	EB	5,300	0.56	C	0.56	C	0.00	No	0.56	C	0.00	No
			WB	4,200	0.45	B	0.45	B	0.00	No	0.45	B	0.00	No

Source: SANDAG Series 13 Forecast Year 2035 (2016); Chen Ryan Associates, Inc. (2016)

Notes:

Bold letter indicates unacceptable LOS.

V/C = Volume to capacity ratio

[1] SANDAG Series 13 Forecast Year 2035.

6.4 Impact Significance and Mitigation – Non-Event to Design Event

Based on the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Future Year 2035 Non-Event Conditions would cause significant impacts to the following intersections:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[14]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[14]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection. Similarly, external public event organizers should be responsible for providing Traffic Management Plans and traffic control officers as needed, consistent with event size and time.

6.5 Impact Significance and Mitigation – Current Event to Design Event

Based on the significance criteria presented in Section 2.4, the addition of Proposed Project traffic to Future Year 2035 Plus Current Event Conditions would cause significant impacts to the following intersections:

8. First Avenue / Beech Street – LOS F (Event Dismissal)
12. Convention Center Court / Harbor Drive – LOS F (Event Arrival & Dismissal)[14]
14. Fifth Avenue / Broadway – LOS F (Event Dismissal)
16. Fifth Avenue / G Street – LOS F (Event Dismissal)
17. Fifth Avenue / Harbor Drive – LOS F (Event Arrival & Dismissal)
18. Park Boulevard / Harbor Drive – LOS F (Event Dismissal)[14]

All significant impacts associated with Proposed Project events will be temporary in nature and would only occur on the day of the event. Therefore, no permanent mitigation measures are recommended. Rather, it is recommended the Applicant continue to prepare annual Traffic Management Plans, reflecting changes in parking availability and circulation. It is recommended the Applicant continue to utilize traffic control officers at the intersections of Park Boulevard / Harbor Drive and Convention Center Court / Harbor Drive as outlined in the Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. Additionally, traffic control officers should also be deployed at the Fifth Avenue / Harbor Drive intersection. Similarly, external public event organizers should be responsible for providing Traffic Management Plans and traffic control officers as needed, consistent with event size and time.

[14] Signal is turned off during event dismissal period and the intersection controlled manually by Harbor Police. Therefore, LOS and delay do not reflect field conditions.

7.0 Pedestrian, Bicycle and Transit Assessment

This chapter discusses the potential impacts to pedestrian, bicycle, and transit modes that may result from the Proposed Project. The following public access enhancements are included in the Proposed Project, which will benefit pedestrians and/or cyclists:

- Replace the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park area with a 12-foot-wide promenade;
- Installation of public access wayfinding signage and educational signage throughout EMPS;
- Installation of LED lighting to illuminate portions of the promenade and main access point to aid in nighttime wayfinding and create a safe nighttime environment;
- Installation of public benches within the Bayside Performance Park;
- Visual public art element illuminated on the exterior acoustic shell;
- Refurbishment of the existing public outdoor gazebo with similar materials as existing; and
- Concrete steps and a deck at the back of the performance stage that would be open to the public as a bay viewing deck during non-event hours.

7.1 Pedestrian

Pedestrian facilities along study roadway segments include the following:

- Harbor Drive, between West G Street and Pacific Highway – Sidewalks and a pedestrian promenade run along the west side of this segment; however, sidewalks are intermittent along the east side.
- Harbor Drive, between Pacific Highway and Kettner Boulevard – Sidewalks are present along both sides of this segment.
- Harbor Drive, between Market Street and Front Street – A sidewalk is present along the south side of this segment. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, between First Avenue and Convention Center Court – A sidewalk is present along the Convention Center frontage road, just south of Harbor Drive. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, between Fifth Avenue and Park Boulevard - A sidewalk is present along the Convention Center frontage road, just south of Harbor Drive. East of the Convention Center, a sidewalk is present along the south side of Harbor Drive. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, south of Park Boulevard – Intermittent sidewalks are present along both sides of Harbor Drive, south of Park Boulevard.
- Pacific Highway, between W. G Street and Harbor Drive – Sidewalks are present along both sides of this segment.

Prior to, during, and after the event, Traffic Directors are deployed to facilitate circulation. One Traffic Director will be located along Marina Park Way to facilitate crossings across the Class I Multi-Use Path, which will benefit pedestrian and cyclist safety and vehicle circulation.

The Proposed Project does not prevent access to any of these facilities or increase hazards to utilize any of the existing facilities, nor does the Proposed Project inhibit implementation of planned facilities.

7.2 Bicycle

Within the study area, Pacific Highway is designated as a Class III Bike Route. A Class I Multi-Use Path runs parallel to Harbor Drive throughout the Downtown community. Additionally, Harbor Drive is designated as a Class III Bike Route between Pacific Highway and Fifth Avenue. Class II Bike Lanes are present on Harbor Drive east of Fifth Avenue. Existing bicycle racks within EMPS are located near the fishing pier and near the north side of the park area, overlooking the San Diego Marriott Marina. Additionally, a San Diego Bike Share station is located at the entrance to EMPS, near the intersection of the Promenade and Marina Park Way, which provides bicycle rentals to the public on an automated, short term basis. Bicycles may be rented at this station or brought from other locations and docked.

The Proposed Project does not prevent access to any of these facilities or increase hazards to utilize any of the existing facilities, nor does the Proposed Project inhibit implementation of planned facilities.

7.3 Transit

The Gaslamp Quarter Trolley Station is in close proximity to the project site, located just east of Fifth Avenue, between L Street and Harbor Drive. This station provides service for the MTS Green Line Trolley, which extends from Downtown San Diego to Santee. The Santa Fe Depot is located on the northwest corner of Kettner Boulevard and Broadway, approximately 1.7 miles from EMPS. The Santa Fe Depot provides Amtrak Pacific Surfliner and Coaster connections, as well as MTS Green Line and Orange Line stops.

Ferry service is provided at Fifth Avenue Landing, directly adjacent to the project site, connecting Downtown San Diego to the City of Coronado. Water taxi service is also available at Fifth Avenue Landing, serving the Downtown San Diego, Coronado, and Point Loma within the San Diego Bay.

Additional transit service is provided at the following locations:

- 10th Avenue & Park Boulevard (Petco Park) – Bus Routes 11, 901, and 929
- 12th and Imperial Transit Center – Orange Line Trolley, Blue Line Trolley, Green Line Trolley; Bus Routes 4, 11, 901, and 929; Greyhound Bus

Incentivizing patrons to arrive to events by transit or ferry is one potential measure that can be used to reduce parking demand and the number of vehicles driven to the project site on event days. Potential incentive options may include providing concessions vouchers for the cost of daily transit passes and/or providing discounted transit passes on event days. Additionally, the Applicant should continue to provide transit and ferry schedule information in conjunction with the venues schedule and events announcements. The recently implemented Free Ride Everywhere Downtown (FRED) shuttle service provides a free shuttle within downtown and can be used to connect transit stops to the event site. Promotion of FRED with other transit information should be considered. Coordination with MTS may be required to help verify patron use of transit or implementation of additional measures.

The Proposed Project does not prevent access to any of the existing facilities, or increase hazards to utilize any of the existing facilities, nor does the Proposed Project inhibit implementation of planned facilities.

7.4 Impact Significance and Mitigation

Potential impacts relating to pedestrian, bicycle, and transit circulation are considered significant if the Proposed Project would substantially increase hazards due to a design feature, or would conflict with the adopted policies, plans or programs supporting alternative transportation, as outlined in Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*. The Proposed Project does not include any changes to existing roadways or other transportation related facilities. Therefore, the Proposed Project would not conflict with, or generate any significant impacts to existing pedestrian, bicycle, or transit facilities, nor to planned facilities and policies included in the following documents:

- The City of San Diego Bicycle Master Plan
- The City of San Diego Pedestrian Master Plan
- Downtown San Diego Mobility Plan
- San Diego Forward: The Regional Plan
- Riding to 2050 The San Diego Regional Bike Plan

8.0 Site Access and Parking

This chapter addresses access to the project site and assesses the projected parking demand of the Proposed Project.

8.1 Site Access

Due to the Proposed Project location and geographical constraints, site access will be primarily by foot. Upon project build-out, the Bayside Performance Park component of the Proposed Project would cover approximately 3.47 acres of the EMPS, or approximately 32 percent of the 10.8-acre EMPS. Recognizing the importance of the EMPS as a public park, the public promenade will remain open to the public at all times. Access within the Bayside Performance Park would be limited to patrons during event hours, with the exception of the back-of-stage steps and deck, which could remain open to the public during certain events, depending on the programming and event type. The back-of-stage steps and deck provide views of the bay and are accessible from the public promenade on the southwestern end of the site. The Proposed Project would include a reorientation and a widening of the promenade to 12 feet on the northwestern (Bayside Performance Park) area of the EMPS, as well as other park enhancements. The promenade—both around the Bayside Performance Park and throughout the rest of the EMPS—would remain open to the public at all times, including during all events, providing unlimited public access to the bay. In addition to the previously described enhancements, the following public access enhancements are proposed:

- Replace the existing 8-foot-wide promenade around the perimeter of the Bayside Performance Park site with a 12-foot-wide promenade;
- Installation of public access wayfinding signage and educational signage throughout the EMPS;
- Installation of LED lighting to illuminate portions of the promenade and main access point to aid in nighttime wayfinding and create a safe nighttime environment;
- Installation of public benches within the Bayside Performance Park;
- Visual public art element illuminated on the exterior acoustic shell;
- Refurbishment of the existing public outdoor gazebo with similar materials as existing; and
- Concrete steps and a deck at the back of the performance stage that would be open to the public as a bay viewing deck during non-event hours.

Event attendees are anticipated to access the Proposed Project site in a manner similar to current event conditions, as outlined in the Traffic Management Plan for the 2016 Summer Pops Season, and included in Appendix I. Details from the Traffic Management Plan regarding pedestrian and vehicular circulation during the Event Arrival and Event Dismissal are provided below.

Pedestrian Access – Event Arrival

Pedestrians leaving the Hilton parking structure will be directed to the pedestrian path sidewalk adjacent to the Hilton Hotel. Signage will be placed at Gull Street and the parking structure exit gate to direct pedestrians to the path. Once on the path, pedestrians continue west towards Marina Park Way where a Traffic Director is stationed to assist pedestrians with crossing. Patrons then continue along the Marina Park Way sidewalk towards EMPS and the venue entrance.

Pedestrians leaving the Convention Center parking facility will do so by utilizing the rear exit ramp of the west side of the Convention Center at Convention Way. One lane of the ramp will be dedicated to pedestrians for both inbound and outbound pedestrians, delineated with signage and cones. Once at the

top of the exit ramp, patrons can board the shuttle or continue on foot to the Embarcadero where a traffic director and signage will direct patrons towards the venue.

Pedestrian Access – Event Dismissal

As patrons exit the venue, a Traffic Director will guide pedestrians heading to the Hilton parking structure to a crossing location onto the Embarcadero pathway. The pathway will lead pedestrians back to the Hilton parking structure. Patrons returning to the Convention Center parking facility will not use the crossing, instead following the sidewalk to the Convention Center, across the loading dock are and will proceed to the dedicated pedestrian lane on the exit/entrance ramp. A Traffic Director will monitor the loading dock area and make adjustments as needed.

Vehicular Access – Event Arrival

Prior to the beginning of an event, the Applicant will control entry to the EMPS beyond the turn-around loop to prevent patrons from parking in the Park. Vehicles who indicate they are visiting Joes Crab Shack, fishing pier, basketball court and or the Park will be permitted to continue into the Park. Traffic directors will communicate the status of available parking and assist with passenger drop-off within the park. The Hilton parking structure and Fifth Avenue Landing lot are accessed by heading south on Park Boulevard from Harbor Drive. The Hilton parking structure is then accessed directly east of Park Boulevard. The Fifth Avenue Landing lot is accessible by continuing on Park Boulevard until it becomes Convention Way, at which point the lot is accessed to the south. The Convention Center garage is accessed by heading south on Convention Center Way from Harbor Drive.

Vehicular Access – Event Dismissal

Prior to event conclusion, Traffic Directors are deployed along Marina Park Way, Convention Way, Park Boulevard, and the Park Boulevard/Harbor Drive intersection to facilitate the event dismissal. Traffic Directors manage both pedestrian and vehicular movement in all locations during the exit. Vehicles entering the Park to pick up patrons or visit the other public locations within the Park, proceed under the direction of the Traffic Director.

The San Diego Police Department and the Applicant's parking and traffic staff monitor, direct and adjust traffic patterns in an effort to maintain efficient traffic circulation for each event. Staff will be in place 1 hour prior to event and will remain until traffic has cleared and or directed to do so by site management.

8.2 Parking

Available Parking

Proposed Project event parking is anticipated to operate in the same manner as outlined in the 2016 Summer Pops – Embarcadero Marina Park South Traffic Management Plan, provided in Appendix I. According to the current Traffic Management Plan, the following parking lots may be used by patron's attending the venue:

- EMPS Parking Lot (128 total existing spaces; 132 spaces with Proposed Project)[15]

[15] The District designates 56 spaces at EMPS for use by the Symphony. Fifteen of these spaces are designated as "ADA" parking. The remaining spaces will be used by musicians and Symphony site/administrative staff. The remaining 72 spaces are left available for members of the public visiting EMPS (non-event park users).

- Fifth Avenue Landing Parking Lot (287 total spaces)[16]
- Hilton Parking Garage (1,900 total spaces)[17]
- Convention Center Parking Garage (1,900 total spaces)[18]
- Local Parking Lots – Gaslamp Area (1,600 estimated spaces)
- Local Parking Lots – Copley Symphony Hall Area (1,900 estimated spaces)
- Remote/Overflow Parking Lot – BAE Systems (200 spaces)

Boat slips are also available at the following locations:

- Marriott Marquis San Diego Marina – Four at up to 55 linear feet
- Joe's Crab Shack – One at 25 linear feet; one at 40 linear feet
- Fifth Avenue Landing – Varies

Employee Parking

The District designates 56 parking spaces at EMPS for use by the Applicant. Fifteen of these spaces are designated as "ADA" parking. The remaining 41 spaces are for employee use, such as musicians, and site/administrative staff. These parking spaces are controlled/monitored via Applicant parking management. BAE Systems, located south of the Proposed Project site in the Barrio Logan community, has agreed to allow the Applicant use of 200 parking spaces within their 900-space parking lot located at the corner of Sampson & Main. Event staff will park in this lot and shall be shuttled to and from the Proposed Project site.

Proposed Project Required Parking – Future Year 2035

The number of parking spaces required under Proposed Project conditions was determined using a process similar to the trip generation, utilizing survey data to estimate the number of patrons arriving via automobile (excluding Uber and other rideshare services), while considering attendees that carpool.

Survey responses indicate approximately 75% of attendees arrive to the events via automobile. Uber and other rideshare service responses were excluded, as they do not require a parking space. As shown in **Table 8.1**, it is estimated that 7,460 patrons will arrive via automobile for a 10,000-person event.

Table 8.1 Parking Requirement Assumptions

Maximum Number of Attendees under Buildout Conditions	10,000
% of attendees arriving via automobile (excluding Uber, other rideshare)	74.6%[1]
Estimated # of attendees arriving via automobile under Buildout Conditions	**7,460**

Source: Chen Ryan Associates, Inc. (2016)

Notes:

[1] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

Table 8.2 factors carpooling into the number of attendees arriving by automobile, resulting an in an estimated parking demand of 2,919 vehicles for a 10,000-person event.

[16] The Applicant has arrangements with the leaseholder of the Fifth Avenue Landing parking lot to secure the 287 parking spaces for events. The Fifth Avenue Landing Parking Lot spaces may not be available at Proposed Project buildout due to potential development that may occur on the site.

[17] The San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR identified an average of 1,300 spaces at the Hilton Parking Garage after 6:00 PM, on a Friday and Saturday, during the month of September 2011.

[18] The San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR identified an average of 1,600 spaces at the Convention Center Parking Garage after 6:00 PM, on Saturdays, during the month of August 2010.

Table 8.2 Parking Requirements – Proposed Project Conditions

Number of Attendees Arriving with	Percent of Attendees by Carpool Category[1]	Attendees that Drove by Carpool Category	Auto Trips by Carpool Category (one-way)
0	1.89%	141	141
1	46.96%	3,503	1,752
2	19.22%	1,434	478
3	20.97%	1,564	391
4	8.25%	616	123
More than 4	2.71%	202	34
Total	**100%**	**7,460**	**2,919**

Source: Chen Ryan Associates, Inc. (2016)

Note:

[1] San Diego Symphony Bayside Performance Park – Transportation & Parking Survey (2016)

The Hilton parking structure, Convention Center garage, and Fifth Avenue Landing lot are the primary parking facilities utilized by event patrons. Parking availability at the Hilton parking structure and the Convention Center garage were determined by referencing the Convention Center Expansion EIR, which provides average parking availability at each location for various times of day and months of year. The Applicant has arrangements with the leaseholder of the Fifth Avenue Landing parking lot to secure the 287 parking spaces for events, however, it should be noted that these spaces may not be available at Proposed Project buildout due to potential development that may occur on the site, in which case alternative parking spaces need to be identified. The San Diego Convention Center Phase III Expansion & Expansion Hotel Project EIR[19] identified an average of 1,600 spaces at the Convention Center garage on Saturdays during the month of August after 6:00 PM, and 1,300 available spaces at the Hilton parking structure on a Friday and Saturday during the month of September after 6:00 PM. Combined, these three locations provide a projected supply of 3,187 available spaces, which exceeds the estimated 2,919 spaces required by the Proposed Project during a 10,000-person event. Parking agreements are provided in Appendix D for the 2016 event season for the Hilton parking structure, Convention Center garage, and Fifth Avenue Landing lot. If the current parking arrangements are maintained, non-SDSOA events would be required to make separate parking arrangements consistent with the size and scale of the respective event.

In addition to the Hilton parking structure, Convention Center garage, and Fifth Avenue Landing lot, there are an estimated 1,900 spaces available for patron use at local parking lots within the Gaslamp Area. Additionally, BAE Systems, located in Barrio Logan, has agreed to allow use of 200 parking spaces within their 900-space parking lot located at the intersection of Sampson and Main. This lot will be used by event patrons and staff as needed. A shuttle is used to transport staff and patrons from this location to the Proposed Project site as needed.

8.2.1 Measures to Improve Parking Operations/Reduce Parking Demand

Although a sufficient number of parking spaces currently exists to accommodate event patrons, it is recommended the Applicant continues to implement the measures identified in the 2016 Summer Pops – Embarcadero Marina Park South Traffic Management Plan and the measures identified below to help reduce overall parking demand and maintain efficient circulation:

[19] Excerpts from the San Diego Convention Center Phase III Expansion & Expansion Hotel Expansion EIR are provided as Appendix R.

- *Parking Plan* – Continue to implement the Parking Plan identified in the 2016 Summer Pops – Embarcadero Marina Park South Traffic Management Plan.
- *Coordination* – Continue to participate in the monthly Traffic Management Planning Team meetings at the Convention Center, with representatives from the Convention Center, Hilton Bayfront Hotel, Padres, SDPD traffic control, and District's traffic division.
- *Traffic Personnel* – Continue to locate staff in accordance with the existing Traffic Management Plan, to facilitate circulation and direct attendees to available parking locations.
- *Wayfinding Signage* – Continue to utilize signage to direct patrons to the parking locations. Update signage directions according to forecast parking availability determined at monthly Convention Center Traffic Management Planning Team meetings.
- *Public Notification* – Continue to notify event patrons of parking availability in advance of events and provide updates on the Applicant's website.
- *Presale Parking* – Continue to provide opportunities to purchase parking passes in advance of events.
- *Parking Agreements* – Continue to obtain parking agreements to ensure adequate availability of parking spaces for event sizes, when feasible.
- *Transit and Ferry Information* – Continue to provide transit and ferry schedule information in conjunction with venue schedule and event announcements.
- *Transit and Ferry Incentives* – Consider providing incentives for event patrons to arrive by transit as a means to reduce parking demand and the number of vehicles driven to the events.
- *Employee Off-Site Parking* – Continue to provide off-site parking and shuttle accommodations for employees and event staff.
- *Transportation Network Companies* – Continue to coordinate with companies (such as Lyft and Uber) to facilitate passenger drop-off and pick-up and to encourage patrons to utilize this option as a means to reduce parking demand.
- *Free Ride Everywhere Downtown* – Make event patrons aware of the "Free Ride Everywhere Downtown" (FRED) shuttle service, which provides free shuttle service within Downtown San Diego.
- *Bike Parking* – Ensure bicycle parking is available within or adjacent to the project site to encourage employees/patrons to arrive to the event via bicycle.
- *Bike Share Stations* – Coordinate with DECOBIKE San Diego to ensure the bike station located Marina Park Way and the Embarcadero pathway has available bikes and docking stations.
- *Shuttle Service* – If parking lots further from the Proposed Project site are secured for future events, shuttle service should be provided to transport attendees between the parking location and Proposed Project site.

Similarly, external public event organizers should be responsible for providing Traffic Management Plans, including parking arrangements, consistent with event size and time.

9.0 Project Construction

Proposed Project construction will generate additional trips during the Near-Term Year 2020 time period and could potentially be associated with temporary impacts. Therefore, a Near-Term Year 2020 analysis was performed with and without construction traffic to identify potential traffic related impacts associated with construction. Proposed Project construction activities are anticipated to occur Monday through Saturday, from 7:00 AM to 7:00 PM, consequently the analysis was performed using traditional AM and PM peak hours.

9.1 Construction Trip Generation

Proposed Project construction activities include demolition, grading, construction of the performance stage and park enhancements, performance stage shell covering, and paving. The construction of the performance stage and park enhancements are anticipated to require the greatest number of construction personnel, with up to 75 workers and 4 construction trucks during the peak. As a worst-case scenario, it is assumed that all workers would drive individual vehicles to the project site, arriving and departing during the AM and PM peak hours. Table 9.1 displays the assumed vehicle trip generation during the peak of project construction.

Table 9.1 Project Construction Trip Generation

					AM Peak Hour			PM Peak Hour		
Use	Units	Vehicle Conversion Rate	Daily Trip Rate	Daily Vehicle Trips	Total	In	Out	Total	In	Out
Worker	75	1	2 / worker	150	75	75	0	75	0	75
Truck	4	3	2 / truck	24	12	12	0	12	0	12
			Total	**174**	**87**	**87**	**0**	**87**	**0**	**87**

Source: Chen Ryan Associates (2016)

As shown, Proposed Project construction is anticipated to generate approximately 174 daily vehicle trips, including 87 trips during the AM and PM peak hours. Due to the Proposed Project construction trip generation volumes being significantly less than those generated by the Proposed Project, only intersections providing access to the project site were analyzed.

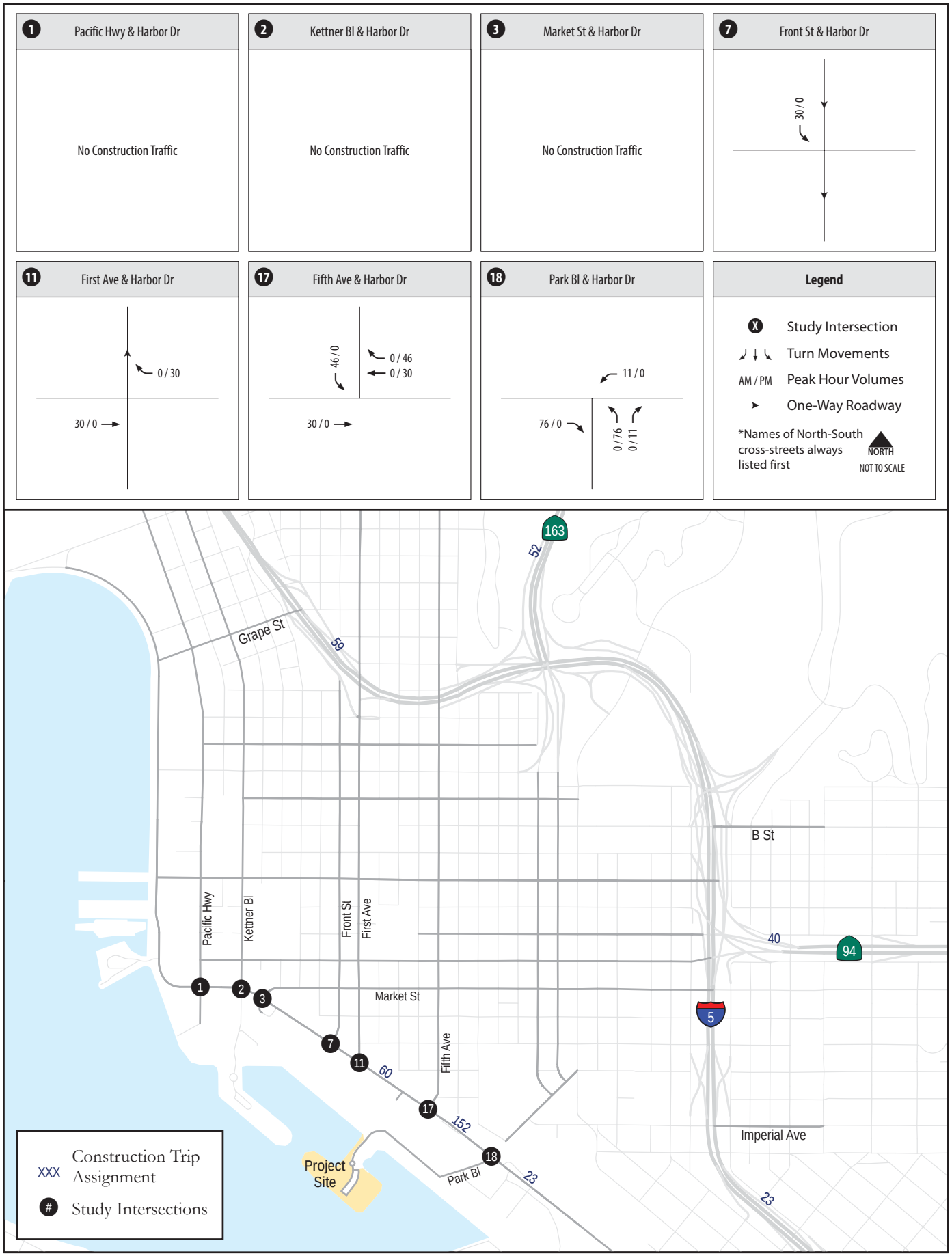
The construction traffic trip distribution for construction related trips is displayed in Figure 9-1. Construction trip distribution is based on SANDAG's *San Diego Region Major Statistical Areas*, with information provided in Appendix S. Project construction traffic was assigned to the roadway network based on the assumed project distribution patterns displayed in Figure 9-1. Construction trip assignment is displayed in Figure 9-2.

Existing mid-week volumes were obtained from the Draft Fifth Avenue Landing TIA (2017), and provided in Appendix T, to better replicate construction conditions. The volumes were grown Year 2020 volumes using the methods identified in Chapter 5. Near-Term Year 2020 with Project Construction volumes were developed by combining the Near-Term Year 2020 Base traffic volumes contained in the Fifth Avenue Landing TIA, with the project construction trip assignment volumes displayed in Figure 9-2. Figure 9-3 displays the Near-Term Year 2020 plus anticipated traffic volumes during construction for segments and intersection turning movements.

Bayside Performance Park Enhancement Project
Transportation Impact Analysis

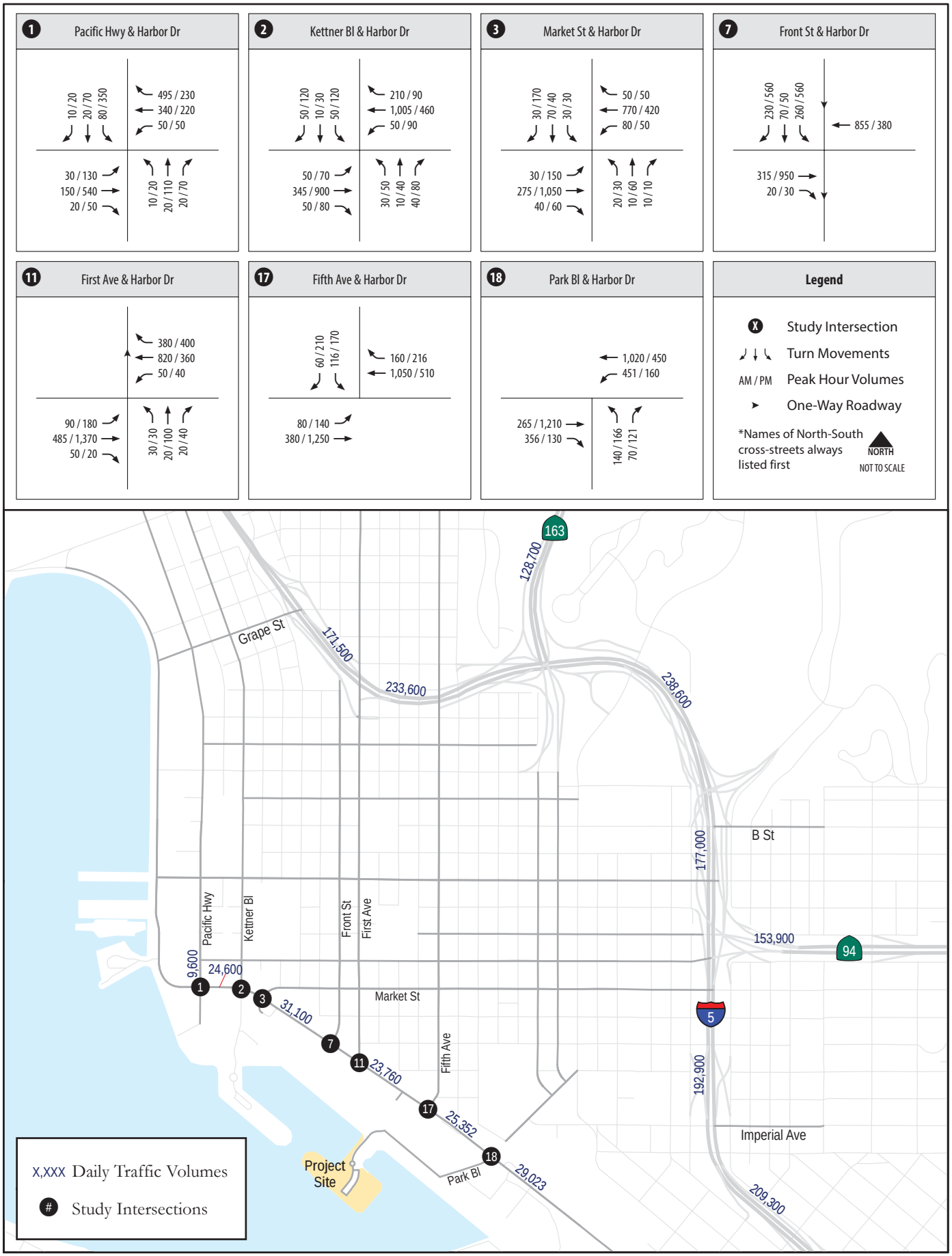
CHEN RYAN

Figure 9-1
Construction Trip Distribution



Bayside Performance Park Enhancement Project
Transportation Impact Analysis
CHEN RYAN

Figure 9-2
Construction Trip Assignment
(Intersections 1-3, 7, 11, 17 & 18)



Bayside Performance Park Enhancement Project
Transportation Impact Analysis

CHEN RYAN

Figure 9-3
Near-Term Year 2020 Base Plus
Project Construction Volumes (Intersections 1-3, 7, 11, 17 & 18)

9.2 Construction Analysis

Level of service analyses under Construction Traffic conditions were conducted along study roadway segments and intersections along Harbor Drive, using the methodologies described in Chapter 2.

Table 9.2 displays the daily roadway segment LOS results for Near-Term Year 2020 Base and Near-Term Year 2020 Base Plus Construction Traffic conditions. As shown, all study roadway segments are projected to operate at LOS C or better during the peak of project construction.

Table 9.3 displays intersection LOS and average vehicle delay results for both Near-Term Year 2020 Base and Near-Term Year 2020 Base Plus Construction Traffic conditions. LOS calculation worksheets are provided in Appendix U. As shown, all study area intersections are projected to operate at an acceptable LOS during the peak of project construction.

9.3 Construction Parking Conditions

The peak number of construction workers is anticipated to be 75. As a worst-case scenario, it is assumed that all workers would drive individual vehicles to the project site, requiring 75 parking spaces. Construction personnel are anticipated to park within the project construction limits or at one of the locations with a previously obtained parking agreement (Hilton parking structure, Convention Center parking garage, or Fifth Avenue Landing parking lot).

9.4 Impact Significance and Mitigation

Based on the significance criteria presented in Section 2.4, the addition of construction traffic to Near-Term Year 2020 Base Conditions would not cause any roadway facilities to operate at LOS F. Therefore, no significant traffic impacts would be associated with the construction of the Proposed Project. Therefore, no mitigation would be required.

9.4.1 Construction Parking

To ensure parking impacts do not occur during construction, a parking agreement should be in place to secure spaces at the Hilton parking structure, Convention Center parking garage, and/or Fifth Avenue Landing parking lot[20], or other available lots to provide for construction parking on occasions where vehicles cannot park within the project site. Parking spaces will remain available at EMPS during construction to ensure public access to the fishing pier is maintained.

[20] The Fifth Avenue Landing Parking Lot spaces may not be available during construction due to potential development that may occur on the site.

Table 9.2 Near-Term Year 2020 Plus Construction Traffic Segment LOS

Roadway	Segment	Cross-Section	Threshold (LOS E)	Near-Term Year 2020 Plus Construction Traffic			Near-Term Year 2020 Base			Δ	Sig?
				ADT	V/C	LOS	ADT	V/C	LOS		
Harbor Drive	Pacific Highway to Kettner Boulevard	6-lane w/ raised median	50,000	24,600	0.492	B	24,600	0.492	B	0.000	No
	Market Street to Front Street	5-lane w/ raised median	45,000	31,100	0.691	C	31,100	0.691	C	0.000	No
	First Ave to Convention Center Court	4-lane w/ raised median	40,000	23,760	0.594	C	23,700	0.593	C	0.001	No
	Fifth Avenue to Park Boulevard	4-lane w/ raised median	40,000	25,352	0.634	C	25,200	0.630	C	0.004	No
	South of Park Boulevard	4-lane w/ raised median	40,000	29,023	0.726	C	29,000	0.725	C	0.001	No
Pacific Highway	West G Street to Harbor Drive	6-lane w/ raised median	50,000	9,600	0.192	A	9,600	0.192	A	0.000	No

Source: Fifth Avenue Landing TIA (2017); Chen Ryan Associates, Inc. (2016)

Notes: V/C = Volume to Capacity Ratio

Table 9.3 Near-Term Year 2020 Plus Project Construction Traffic Peak Hour Intersection LOS

		Near-Term Year 2020 Plus Construction Traffic				Near-Term Year 2020 Base					
		AM		PM		AM		PM			
#	Intersection	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Δ in Delay AM / PM	Sig?
1	Pacific Highway / Harbor Drive	25.1	C	30.8	C	25.1	C	30.8	C	0.0 / 0.0	No
2	Harbor Drive / Kettner Blvd	18.0	B	27.1	C	18.0	B	27.1	C	0.0 / 0.0	No
3	Market Street / Harbor Drive	27.1	C	21.5	C	27.1	C	21.5	C	0.0 / 0.0	No
7	Front Street / Harbor Drive	32.3	C	36.6	D	32.2	C	36.6	D	0.1 / 0.0	No
11	First Avenue / Harbor Drive	12.9	B	24.3	C	13.0	B	24.3	C	0.0 / 0.0	No
17	Fifth Avenue / Harbor Drive	16.6	B	28.7	C	13.5	B	26.8	C	3.1 / 1.9	No
18	Park Boulevard / Harbor Drive	54.3	D	15.3	B	52.0	D	14.5	B	2.3 / 0.8	No

Source: Fifth Avenue Landing TIA (2017); Chen Ryan Associates, Inc. (2016)

The appendices to this report are available at the San Diego Unified Port District Clerk's Office